

## AN ALTERNATIVE CREDIT GUARANTEE SCHEME FOR FINANCING MSEs IN ISLAMIC BANKING

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### ABSTRACT

The objective of this paper is to propose a model for a financing guarantee scheme (FGS) funded by the voluntary sector (through zakat, infaq, and sadaqah, or ZIS funds) to support small and medium-sized enterprises (SMEs). We argue that the existing credit guarantee scheme (CGS) relies on government funding, but that in the current Covid-19 pandemic it is experiencing unstable financial capability. Hence, the sustainability of the CGS program is questionable. We employ the input-output (I-O) approach to identify the expected impact if the proposed FGS is applied. We further substantiate the proposal with seven Indonesian Syariah experts' opinions, of whom five suggest that the alternative scheme is acceptable. The simulation using I-O shows that if IDR1 trillion (out of IDR10 trillion from ZIS funds in 2019) is disbursed through the scheme, this will increase economic growth by 0.0117%, representing economic activities worth IDR1.235 trillion, and creating 2,151 new jobs. We further discuss the implications of the findings for the Islamic banking industry in the future and for regulators.

*Keywords:* Covid-19, MSEs, Credit guarantee scheme, Islamic bank.

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## **I. INTRODUCTION**

### **1.1. Background**

The coronavirus pandemic has created a global slowdown in economic growth. China, as the epicentre of the pandemic, has opened the gate to this global economic crisis, given that it contributes around 16% of global GDP and 11% of total trade (Bank Indonesia, 2020a). As a result, at the beginning of the crisis, Bank Indonesia (2020a) estimated that economic growth would see a slight correction from 5.1-5.5% to 5.0-5.5% in 2020. In fact, the Indonesian economy has not only experienced a correction, but has fallen into recession (experiencing negative growth in two consecutive quarters or more) (Depkeu, 2020).

The recession has in turn severely hit the sustainability of businesses, particularly that of micro, small, and medium-sized enterprises (hereafter, MSMEs will be termed simply as micro and small enterprises, or MSEs). Ascarya and Rachmawati (2019) state that in 2012 there were 55.86 million (98.79%) micro enterprises and more than 629,000 (1.11%) small enterprises. Currently, many MSEs have been disrupted and seen declining sales due to the reduction in activities in society because of the large-scale social restrictions. The delayed supply chains for goods and raw materials further increases costs, which in turn results in declining profitability (Bank Indonesia, 2020b). The Chairman of the Indonesian Chambers of Trade and Industry, Rosan P. Roeslani, stated that almost 30 million MSEs were estimated to experience bankruptcy (Jannah, 2020). Furthermore, around 85.4% of MSEs would be able to withstand no more than one year of the pandemic situation (Anggraeni, 2020).

In conjunction with anticipating a deepening crisis, Bank Indonesia has prepared to deal with risks concerning liquidity issues and the increasing number of non-performing loans (NPL). Senior Deputy Governor of Bank Indonesia, Destry Damayanti, stated that the government has provided a new credit guarantee scheme to improve lending for MSEs. It has disbursed funding of IDR 5 trillion (US\$341 million) and channelled these funds through PT Jaminan Kredit Indonesia (Jamkrindo) and PT Asuransi Kredit Indonesia (Askrindo) as collateral for MSEs' working capital loans (Akhlas, 2020).

The effort to protect MSEs' survival is urgent for many reasons. First, they constitute a massive 'reservoir' for absorbing unemployment. Liang et al. (2017) suggested that MSEs offer a solution for unemployment. In the context of Indonesia, in 2018 the total number of MSEs was more than 64 million, or around 99.99% of total enterprises. They absorbed almost 117 million workers, or around 97% of the total workforce (Depkop, 2020). Second, MSEs contribute significantly to GDP (González-Loureiro & Pita-Castelo, 2012; Arunagiri et al., 2015). In 2018, in Indonesia they contributed around IDR 8,574 trillion, or 61% of total GDP (Depkop, 2020). Third, MSEs play a significant role in rural areas, given that they recruit local workers, facilitate the development of business skills, and help to alleviate poverty (Huda, 2012; Adam & Lestari, 2017).

Besides these powerful roles of MSEs, they still face latent challenges, such as low productivity, less competition, non-performing loans above the limits, and the inability to provide adequate collateral (Yamamoto, 2001; Adam, 2009; Wardhono et al., 2019; Adam & Lestari, 2017; Nugroho, 2011). To address the risk associated with MSE lending, experts suggest that governments should provide a credit

guarantee scheme (CGS) (Boocock & Shariff, 2005; Yoshino & Taghizadeh-Hesary, 2019). Furthermore, Ascarya and Rahmawati (2018) recommend that regulators set up relevant policies, including ones on price stability and infrastructure, capital support, the cost of doing business, financial access, preparing raw material and appropriate technology.

Although the CGS has been running for more than 40 years in Indonesia (Wardhono et al., 2019), it mostly relies on the government budget. Obviously, this is a critical issue, as the pandemic-centred crisis has weakened the government's financial capability.

Another important issue regarding the current disbursement of CGS through People's Business Credit (KUR) is the weak capability of bank participants to screen potential borrowers and to provide adequate supervision. This leads to increasing NPLs for some banks at levels above 5%, such as in the case of Bukopin (5.5%), BPDs (9.5%), BTN (12.5%), and BSM (17.2%) (Adam & Lestari, 2017). Moral hazard also contributes to the unsuccessful CGS program (Adam & Lestari, 2017; Tambunan, 2019). For instance, many KUR borrowers intentionally default on their loans and are unwilling to pay the principal as well as the interest because they assume the loans are part of governmental assistance.

Third, although KUR admittedly improves the productivity and profitability of MSEs, its effectiveness is obviously questionable (Adam & Lestari, 2017; Tambunan, 2019). For instance, most of its recipients are traders, while farmers, who are in the majority in the country, are a marginal group in the recipient list.

Fourth, from the perspective of Islamic banks, only three out of 13 Islamic commercial banks (BRI Syariah, NTB Syariah and BNI Syariah) were involved in the KUR Program in 2020 (Republika, 2020). There is no clear reason why Islamic banks are reluctant to participate. One possible reason is that they have no experience in dealing with micro loans, which their conventional counterparts do have (BRI, Bank Mandiri and BNI). Hence, there is much room for improvement; the new scheme allows for the participation of inexperienced Islamic banks. Finally, from the marketing perspective, we argue that the participation of Islamic banks in promoting MSEs will send confirmation that they stand firmly for economic justice by expanding their benefits to larger disadvantaged groups (women, farmers, people with disabilities, etc.).

While many studies address the effectiveness of CGS in KUR, the issue of CGS in relation to Islamic banks has been rarely studied (Ali et al., 2018; Adamu, 2018). In addition, most of the literature investigates the government-based CGS (Wignaraja & Jinjarak, 2015; Adam & Lestari, 2017; Tambunan, 2018; ILO, 2019), with almost no research on voluntary-based CGS in Indonesia and assessment of it if applied. Both of these gaps will be explored in this study.

## 1.2. Objective

This paper addresses the aforementioned flaws by proposing an alternative CGS to improve MSEs' access to formal financial institutions. First, the authors propose a new scheme by adopting and modifying CGS in social banking. Instead of relying on the government's budget, the proposed scheme uses ZIS (*zakat*, *infaq* and *sadaqah*) funds injected by ethical partners. Second, the scheme might

trigger controversy, as the distribution of *zakat* is limited to only eight recipients. Accordingly, we conducted short interviews with Syariah experts to identify whether the scheme was acceptable. Finally, we conducted a simulation using an input-output approach to determine the impact of additional funds (both from the government and ZIS funds) in accelerating economic growth and employment.

The paper contributes to the current literature in at least two aspects. First, to the authors' knowledge, it is the first to offer and develop a financing guarantee scheme (FGS) based on ZIS funds as an alternative to the existing CGS. Second, we are convinced that the new FGS implementation will be able to increase growth and national income, as evidenced by the simulation conducted based on the I-O method. However, the paper might have certain limitations, given that the simulation was performed under abnormal conditions. Therefore, the findings require further investigation.

The structure of the paper is as follows. The second section presents the literature review, while the third describes the methodology. The fourth section discusses the findings, and the fifth is the conclusion.

## **II. LITERATURE REVIEW**

### **2.1. Role of Collateral and Credit Guarantee Schemes in Financing MSEs**

In the Basel II framework, the role of collateral is mainly a tool for reducing risk in disbursing credit (De Lisa et al., 2012). Collateral can be a significant indicator of borrowers' creditworthiness and can serve to anticipate their moral hazard, which leads to a reduction in default risk (Stiglitz & Weis, 1981; Boot et al., 1991; Imeraj, 2014). The lack of adequate collateral is commonly cited as one of the primary obstacles to MSE access to banks' financial offerings (Levitsky, 1997a). According to Beck et al. (2006), among 12 financing obstacles, the collateral requirement is ranked third.

In Indonesia, collateral for MSEs is considered to be a hindrance to their business growth (Prijadi & Desiana, 2017). Consequently, they prefer to maximise their internal sources of funding rather than use bank financing. If they have no other choice but to use external borrowing, they are in favour of using non-bank credits (Wignaraja & Jinjarak, 2015). One of the possible reasons for this is that MSEs cannot afford the high administrative costs (Levitsky, 1997b). Additionally, most MSEs cannot pledge sufficient collateral (Nugroho, 2011). Musa and Priatna (1998) surveyed 300 MSEs in Indonesia and found that 75% relied on their own funding, with only 13% borrowing from banks. These figures are in accordance with national data released by BPS in 2014, which showed that around 83.3% and 60% of micro and small businesses respectively relied on internal funding (Adam & Lestari, 2017). The World Bank's 2017 Findex study further affirmed that only a few MSEs (6% of all respondents) accessed bank financing (ILO, 2019).

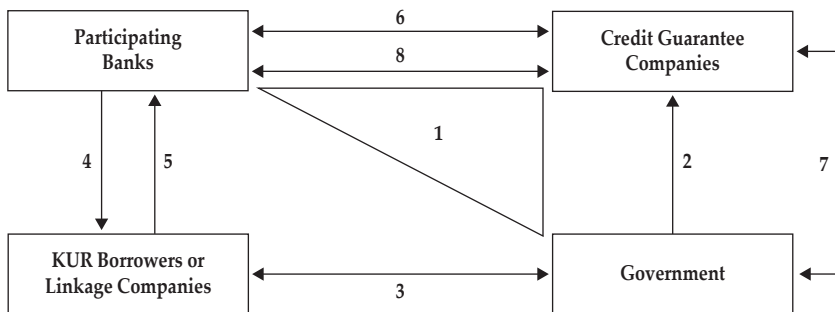
Consequently, many efforts have been made to encourage MSEs to access bank financing by providing incentives such as interest subsidies and guarantees against default (Wattanapruttipaisan, 2003). To some extent, these strategies have been relatively successful, as evidenced by the increase in some commercial banks' outstanding MSEs loans during the period 2005 to 2012. For instance, the percentage of MSE loans to GDP in China increased from 32.8% in 2011 to 36.4% in

2012; from 25.3% to 26.5% in Thailand, from 16.9% to 18.4% in Malaysia; and 6.2% to 6.4% in Indonesia (Wignaraja & Jinjarak, 2015).

In this regard, credit guarantee schemes (CGSs) are becoming the principal element in improving MSEs' financing. On one hand, CGSs will compensate for any risks concerning asymmetry and moral hazard, meaning that banks will not be reluctant to offer loans to MSEs. On the other hand, MSEs are willing to borrow from banks because they are not obliged to provide collateral. According to Levitsky (1997b), CGSs facilitate banks to understand MSE business better in terms of its operations and problems, and to help manage their loan portfolios. Levitsky (1997b) states that among the first developing countries that introduced a CGS were Indonesia (1971), Malaysia (1972), Pakistan (1972), Sri Lanka (1979), and Zimbabwe (1978).

## 2.2. People's Business Credit (KUR) in Indonesia

In 2007, the Indonesia government issued Inpres (Presidential Instruction) No. 6/2007. Among its important points, one was to provide a partial guarantee scheme for micro loans, namely Kredit Usaha Rakyat (KUR), or the People's Business Loan. KUR aims to finance productive and financially feasible, but nonbankable, MSEs (Bank Indonesia, 2018). Three parties are involved in managing KUR: the government, participating banks, and credit guarantee companies (CGC). The Ministry of Finance injected capital and paid a credit guarantee fee (Imbal Jasa Penjaminan) to two CGCs (Askrindo & Jamkrindo). In turn, the CGCs provided a KUR guarantee to participating banks for their eligible MSE loans. The guarantee scheme covered loan portfolio risk up to 70% to 80%. Figure 1 shows the flow of KUR disbursement.



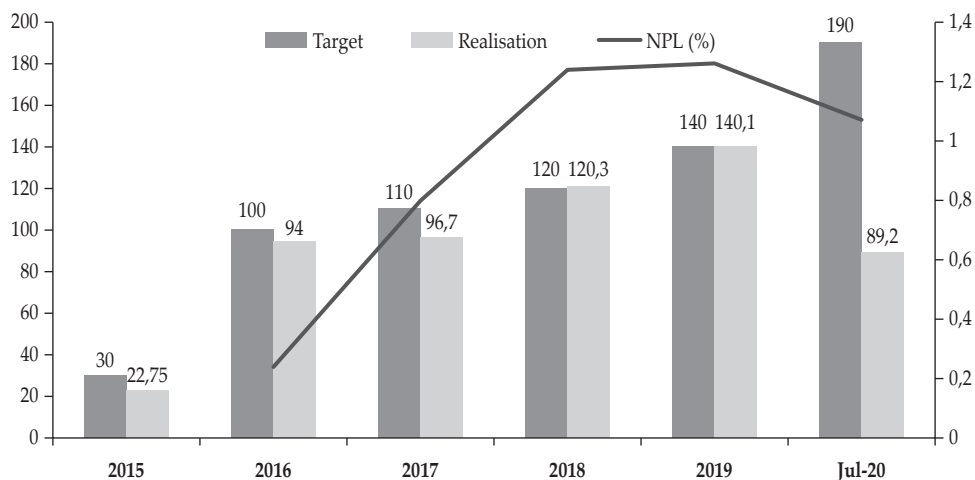
Source: Adam and Lestari (2017)

Notes: 1) MoU between three parties; 2) The government (Ministry of Finance) injected capital into CGC; 3) The government (technical ministries) facilitate participating banks with potential KUR borrowers in each sector; 4) Participating banks disburse KUR; 5) KUR borrowers pay interest and principal instalments to the bank; 6) Participating banks submit a nominative list of KUR borrowers and CGDs then issue a guarantee certificate; 7) CGCs claim the guarantee fee (IJP) of 3.25% annually from the government; and 8) Participating banks file claim applications for credit with collectability 4 and 5 status. Upon completion of the verification, CGCs pay the claim.

**Figure 1.**  
**KUR Disbursement Mechanism**

According to the Regulation of the Coordinating Ministry of Economic Affairs (Permenko) No 8., Year 2015, disbursement of KUR is classified into three groups: micro KUR (maximum disbursement of IDR25 million, with an interest rate of 12%), retail KUR (aimed at supporting working capital or investment with a loan limit of IDR25 million up to IDR500 million per borrower); and KUR for migrant workers (maximum disbursement of IDR25 million). The interest rate has been falling significantly, from 12% in 2015, to 9% in 2016 and 2017, and 7% in 2019 (ILO, 2019).

The realisation of KUR during the period 2010-2017 demonstrates significant results. Total disbursement reached IDR 835 trillion for 22.42 million borrowers, with the average NPL being around 3.3%, which is lower than the maximum limit set by Bank Indonesia (Tambunan, 2018). Initially, Covid-19 greatly affected KUR disbursement, as illustrated by the sharp decline from IDR18.8 trillion in March 2020 to IDR 4.75 trillion in May 2020. Up to 31 July 2020, the government had disbursed IDR 89.2 trillion to 2.67 million borrowers, with an average NPL of 1.07% (Coordinating Ministry for Economic Affair, 2020a). Figure 2 shows the current realisation of KUR.



Source: Coordinating Ministry for Economic Affair (2020b)

**Figure 2.**  
**Disbursed KUR (in trillion IDR) and NPL**

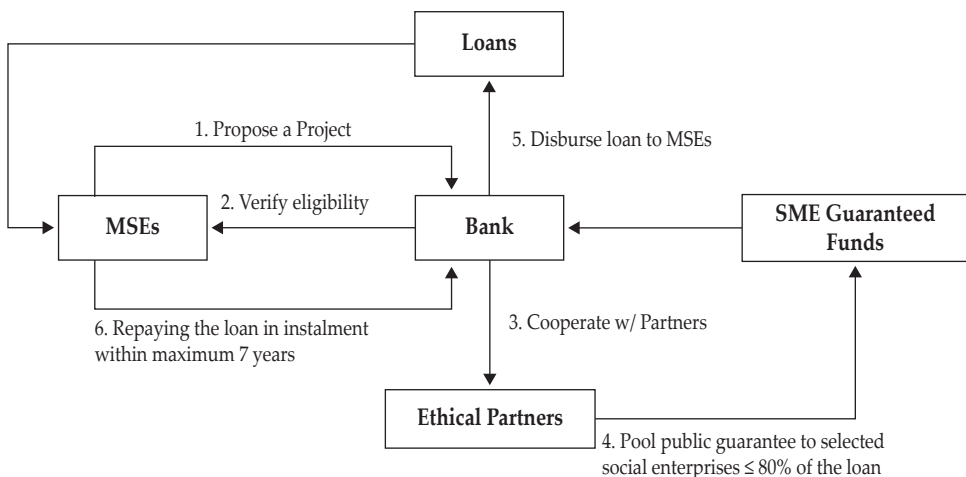
In response to the Covid-19 pandemic, the government has allocated a new budget for KUR of IDR6.1 trillion. The primary goal is to maintain the continuity of MSE businesses. MSEs using the KUR scheme and affected by Covid-19 will be backed by a stimulus in the form of the postponement of principal and interest installments for 6 months (Coordinating Ministry for Economic Affair, 2020b). In addition, the government has also proposed a super micro KUR aimed at supporting laid-off workers and housewives who run small businesses. The new scheme charged zero interest until 31 December 2020 and 6% after 31 December 2020, with a maximum loan per borrower of IDR10 million (Coordinating Ministry for Economic Affair, 2020a).

**2.3. An Alternative Credit Guarantee Scheme in Social Banking**

In the last three decades, the banking industry has been aware of, and has positively responded to, the issue of social responsibility. Some banks have addressed this issue more than others and declared themselves to be social banks. Guene and Mayo (2001, p.1) define social banking as the process in which ‘the supplier of financial services takes a positive interest in the social outcomes and effects of their activities’. In other terms, Cornée and Szafarz (2014, p.361) state that social banks are ‘financial intermediaries paying attention to non-economic (i.e., social, ethical, and environmental) criteria’.

Social banks employ the principles of the triple bottom line (TBL): profit (ensuring profit to maintain bank operations); people (serving communities as a social mission); and planet (preserving the environment and its sustainability for future generations) (Benedikter, 2011; De Clerck, 2009; Weber, 2014). Social banking typically caters for those deemed as having little or no access to financial services or credit. Their services are usually in basic financial forms, such as credit, investments, payment services, and insurance (Reifner, 2001).

In assisting MSEs to access financing, social banks do not rely on conventional collateral. Instead, they offer an alternative guarantee scheme to enable MSEs with inadequate collateral to secure loans. San-Jose et al. (2011) report that social banks still disburse funding to groups that would be excluded by conventional banks without requiring guarantees . Banca Etica, for instance, a social bank in Italy established in 1999, facilitates MSEs with micro credit assistance. A common problem in micro credit is the ability to provide a guarantee for the borrowed funds. This issue has been tackled through the Fondo di Garanzia PMI, or Guarantee Fund for SMEs, and crowd funding (Banca Etica, n.d.).



Source: Hamidi (2021)

**Figure 3.**  
**SME Guaranteed Funds**

Figure 3 shows how Banca Etica addresses the problem of MSE collateral. Instead of using the government budget to back it up, the bank cooperates with a third party, namely ethical partners. These can be private businesses, NGOs or any other institutions that have a similar mission to promote MSE businesses. In June 2017, for instance, Banca Etica signed an agreement with the European Investment Fund (EIF), which agreed to be an ethical partner. This agreement allowed the bank to use €50 million to back up 330 MSEs for the following five years (EIF, 2017). The recipients benefitted from a reduced interest rate and reduced collateral requirements.

#### 2.4. ZIS Funds in Indonesia

Zakat is the third pillar of the Islamic faith. Muslim people who meet the *nishab* (a certain minimum wealth) are obliged to pay zakat. It plays a significant role in Muslim society as it helps to solve social problems by providing a social security system (Zainal et al., 2016). Zakat is considered as a complementary financial source to taxation and its distribution promotes welfare and economic activities through individuals' purchasing power. One investigation of the potential of zakat in Indonesia estimated it to be approximately IDR217 trillion per year, or around 3.4% of Indonesia's GDP in 2010 (Firdaus et al., 2012). Another by Asfarina et al. (2019) estimated potential zakat it to be between IDR69.57 trillion, or equivalent to 0.56% of GDP (using a classical fiqh approach) and IDR216.54 trillion, or around 1.75% of GDP (using a contemporary fiqh approach).

According to the Qur'an (9:60), there are eight groups (*asnaf*) who deserve to receive zakat funding: *al-fuqara* (the needy), *al-masakin* (the poor), *amil* (collectors of zakat), *muallaf* (those converting to Islam), *ar-Riqab* (slaves), *al-gharimin* (people in debt), *fisabilillah* (Allah's cause) and *ibn sabil* (wayfarers). While zakat is an obligatory form of charitable alms giving, Muslims are also encouraged to perform *infaq* (donations) and *sadaqah* (alms) as acts of kindness (Triyowati et al., 2018). *Infaq* is voluntary spending and primarily aimed at helping needy people, while *sadaqah* comprises two forms of charity: *sadaqah al-tathawwu'* (the free will of the donor) and zakat (Khan, 2003). Generally, zakat could be used for MSEs as long as they are eligible *mustahik* (those entitled to receive zakat), while *infaq* can be used for all MSEs.

In Indonesia, the collection and distribution of zakat is intensively regulated. The Zakat Management Act No. 38, year 1999, introduced two formal institutions for its management: the governmental Zakat Collecting Board (Badan Amil Zakat or BAZ) and private zakat institution (Lembaga Amil Zakat or LAZ). BAZ is structured at national, provincial, district and sub-district levels. In 2019, BAZNAS (the National Board of Zakat) collected ZIS (*zakat*, *infaq*, *sadaqah*) funds totalling IDR290 billion (exceeding the target of IDR280 billion). Total ZIS funds collected from BAZ and LAZ reached IDR10 trillion (25% higher than the IDR8 trillion of the previous year) (Andriani, 2020).

In relation to mitigating the impact of Covid-19, some BAZ and LAZ institutions have conducted many programs for health assistance and socioeconomic support. For instance, up to 25 May 2020 BAZNAS distributed funds for emergency health aid (39%), social and economic support (59%) and others (2%) (Beik,



2020). Lazismu (LAZ established by Muhammadiyah) and the Muhammadiyah Covid-19 Command Center (MCCC) have distributed IDR113 billion for handling the impact of Covid-19.

## 2.5. Contemporary Development of ZIS Fund Usage

As a dynamic concept, zakat has been intensively discussed by researchers concerning its innovation and distribution. For instance, in classical *fiqh*, unambiguously agreed zakatable assets include minerals (gold and silver), agricultural products (wheat, barley, dates etc.), live stock (camels, cows, sheep) and business. However, currently it has been extended to non-unanimously agreed zakatable assets, such as income (salary, shares, bonds, gifts, royalties, etc.), agriculture (palm oil, rubber, cocoa etc.), livestock (chickens, ducks, fish etc.), and minerals (tin, iron pieces, gems etc.) (Ahmad & Wahid, 2003; Hamat, 2014). In terms of zakatable assets which conform to the position of classical *fiqh*, these are estimated to constitute between 0.9% and 2% of GDP, increasing significantly from 2% to 7.5% of GDP if zakatable assets are considered beyond classical *fiqh* (Kahf, 1989).

Other innovations include the concept of *muzakki* (an extension of individual *muzakki* to corporate or legal entities) (Alim, 2015) and the contemporary distribution of zakat. With regard to the latter, as suggested by the Qur'an (9:60) the distribution of zakat is allocated only to eight *asnaf*. The interesting part of this verse is the grouping of zakat recipients using the preposition "li" in *lilfuqaraa* and "fi" in *firriqaab*. Although generally they have similar meanings, in this case they serve a certain goal. An explanation on the issue suggests that the preposition "li" reflects distribution of zakat directly to the recipients (or for consumptive purposes), while the preposition "fi" is aimed at indirect zakat distribution (or for productive purposes) (Dakhoir et al., 2014).

Some scholars consider that the traditional practice of zakat distribution in the form of cash payments might not improve recipients' long-term welfare (Qureshi, 1989; Rahman, 1986; Ahmed, 2004). Accordingly, a process of using zakat funds for income-generating programmes is preferable. In this way, zakat funds will be distributed for financing the economic activities of eligible recipients in accordance with their skills and experience (Sarif & Kamri, 2009). Basically, income-generating programmes can be in form of grants or loans, with grants being suitable for recipients who cannot afford to repay loans. However, grants could easily be misused; for this reason, they need monitoring, supervision, and support through training mechanisms to ensure the recipients are fully responsible for their use (Sarif & Kamri, 2009).

Zakat for empowerment purposes has been identified to be more advantageous than if it is given directly for consumptive motives. In the case of BAZ DKI, productive-based zakat aims to finance MSEs, which has helped reduce the poverty rate among the recipients (Hafidhudhin & Beik, 2010). A similar outcome also found in the case of BAZNAS Semarang. Using a sample of 70 MSEs, Sukesti and Budiman (2018) confirmed that productive zakat significantly improved MSEs' business growth.

Some zakat management institutions provide loans in the form of *qard al-hasan* (interest-free loans) (Alim, 2015). Rumah Zakat, for instance, provides *qard al-hasan* to empower zakat recipients with higher educational backgrounds. It has been reported that the loans have made a significant improvement to recipients' wellbeing (Lessy, 2014). Other interest-free loans are disbursed by BAZDA Bangkalan to assist with the working capital of MSEs, with amounts ranging from IDR 500,000 to IDR 1,000,000. Those who receive the loans repay them in instalments based on their ability (Hapsari & Abidin, 2016).

The use of zakat for loans, however, has created disagreement among scholars, given that there is no particular rule suggesting that eligible beneficiaries must repay the loans (Zayas, 2003). We are aware that using zakat funds for contemporary goals, such as to guarantee bank loans, might trigger debate. Accordingly, interviews were conducted with various experts to clarify the issue.

## 2.6. Previous Studies

Credit Guarantee Schemes (CGSs) are seen as an important factor in improving micro, small, and medium-sized enterprises' growth and business development. Boocock and Shariff (2005, p.428) defined them as "loans available to smaller enterprises, on the understanding that a government or quasi-government body will reimburse a percentage of the loan should the firm default".

Some empirical studies have justified the fact that CGSs encourage SMEs to access financing from financial institutions. Riding et al. (2007) explored data from Canada and found that CGSs improve the availability of loans for SMEs. Saadani et al. (2011) investigated the role of CGSs in facilitating SME access to financing. Using data from 10 MENA countries, they found that such schemes were financially sound and improved business growth. However, their effectiveness is questionable, particularly in reaching and supporting small firms. Kuniyoshi and Daisuke (2014) examined information asymmetry in CGS programs in Japan and suggested CGS policy should be evaluated, given that moral hazard and adverse selection undermined their effectiveness.

In Western Europe, the role of CGSs has been reported to bring a significant economic improvement, although some SMEs that were granted guaranteed loans did not receive full collateral relief (Chatzouz et al., 2017). Similar findings were made by Bertoni et al. (2018), who studied the performance of SMEs in France after they had received guaranteed loans and found that SMEs experienced an additional 9% growth in assets, 7% in sales, and 8% in employment.

In relation to Islamic financial institutions, Shariah-compliant guarantees have not been widely offered in their services, as the nature of Islamic finance is based on profit and loss sharing. Charging fees on guarantee schemes is lawful on the grounds that transactions are benevolent in nature (Vizcaino, 2015). Hence, practically, most Islamic banks, like their conventional counterparts, request collateral or guarantees to secure loans. In this regard, their financing might not reach micro and small enterprises which lack adequate collateral.

Scholars have suggested that Islamic banks adopt a group-based lending approach to allow small-sized borrowers to access formal financing (Dusuki, 2008; Adamu, 2018), with borrower members supporting each other. If one of

the members defaults, the remaining ones are also responsible. This approach, for instance, has been applied by Bank Tabungan Pembangunan Nasional (BTPN) Syariah, Indonesia. The bank has financed 5 million customers, with most of its borrowers coming from underprivileged families, who are considered unbankable. However, BTPN Syariah has successfully managed the risk, as can be seen from its remarkable performance, including 9% ROA and 31.7% ROE (Hamidi & Worthington, 2020).

If Islamic banks are involved in CGSs, Ali et al. (2019) suggest they use a *Kafalah* contract, which provides a solution if debtors cannot pay their obligations, with the bank being able to transfer the payment to an agreed third party. A few Islamic banks have participated in CGSs, such as Emirates Islamic (EI, 2019), and Abu Dhabi Islamic Bank (ADIB, 2020) in the United Arab Emirates. In Indonesia, among the 14 Islamic banks, only three, BRI Syariah, NTB Syariah and BNI Syariah, have participated in CGSs (Republika, 2020).

### III. METHODOLOGY

The study employed mixed methods, combining qualitative and quantitative approaches (Creswell, 2013). The qualitative approach involved conducting comparative research and interviews, while the quantitative approach comprised input-output (I-O) analysis. Molina-Azorin (2011) states that a mixed method is very useful for producing comprehensive findings.

#### 3.1. Data

Comparative research was conducted as a tool of analysis. According to Neuman (2007), in such research the researcher observes certain settings, generates similarities and differences, and then creates a generalisation. In our case, the current guarantee scheme as implemented in KUR was first explained and its strengths and weaknesses evaluated. Second, comparisons were drawn between the existing guarantee scheme in KUR and those applied in social banking. Finally, we devised a new alternative guarantee scheme which is expected to improve previous weaknesses.

##### 3.1.1. Qualitative data

To support this approach, we conducted virtual interviews (through WhatsApp and by phone) with seven Indonesian shari'ah experts from related institutions (Table 1). According to Dworkin (2012), the sample size for studies using in-depth interviews varies, but most literature suggests that 5-50 participants is adequate. The interviews comprised open-ended questions and aimed to identify and clarify experts' views on the use of ZIS funds to guarantee MSE loans. The interviewees were selected based on their expertise, educational background, and position in zakat institutions. Four of the interviewees held doctoral degrees in Islamic finance and Shari'ah science.

**Table 1.**  
**List of Indonesian Interviewees, their Institutions and Positions**

No	Respondent			
	Institution	Code	Education	Positions
1	Regulator (National)	R1	Doctoral degree	General Secretary
2	LAZ1 (National)	R2	Doctoral degree	Chief Syari'ah Board
3	LAZ2 (National)	R3	Master's degree	Chairperson
4	LAZ3 (District)	R4	Bachelor's degree	Chief Syari'ah Board
5	LAZ4 (National)	R5	Master's degree	Member of Syari'ah Board
6	Regulator	R6	Doctoral degree	Member of National Syari'ah Board
7	BAZ (National)	R7	Doctoral degree	Director

### 3.1.2. I-O Data

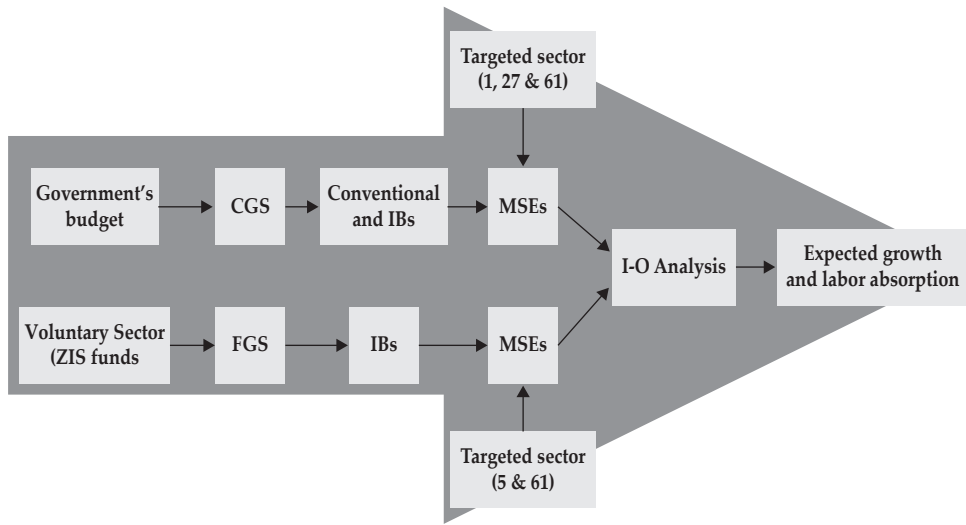
The study employed secondary data derived from the Indonesian input-output (I-O) table updated in 2008 with a classification of 66 x 66 in the production sector, published by the Central Bureau of Statistics of Indonesia (BPS, 2008). The table is still considered relevant (Barata, 2019). Until recently, there have only been minor changes in the structure of the Indonesian economy. As illustrated, it is primary dominated by the agricultural sector. Secondary data were also employed from various other sources (BI, BAZNAS, LAZ) as input for economic improvement.

The first set of data concerned the government's allocation of IDR5 trillion to fortify MSEs against the economic slowdown, channeled through PT Jamkrindo and PT Askrindo. Second, the data relate to ZIS funds. As previously mentioned, in 2019 all BAZ and LAZ in Indonesia collected ZIS funds totalling more than IDR10 trillion. If we assume that IDR8 trillion (out of the IDR10 trillion) will be distributed to eight *asnaf*, each will receive IDR1 trillion. Those MSEs entitled to ZIS funds are presumed to be in the form of *fuqara*, *masakin*, *gharim*, or *fi sabilillah*.

### 3.2. Model Development

Figure 4 shows the proposed model development of the study. We outlined two different sources of funded guarantee schemes: from the government and voluntary sector. The first is intended to support the credit guarantee scheme (CGS), while the latter is aimed at the financing guarantee scheme (FGS). The CGS in Indonesia is applied through KUR; participating banks can be both conventional and Islamic. In the case of the FGS, Islamic banks (IBs) are the only appointed banks to disburse funds, given that the funding is collected from ZIS funds.

In this study, both the CGS and FGS are mainly intended to support MSEs in the different targeted sectors. We assume SMEs use the CGS to fund three selected sectors: paddy fields (sector 1), the food processing and preserving industry (sector 27), and financial institutions (sector 61). In a similar fashion, the FGS is distributed to support the sectors funded through the CGS, namely fruit and vegetables (sector 5) and e-commerce (sector 60). Both the CGS and FGS will be examined by employing I-O analysis to produce the expected additional growth and labour absorption (Cahyono & Sumargo, 2005).



Source: Authors' findings

**Figure 4 .  
Proposed Model**

**3.3. I-O Analysis**

To determine how these additional budgets will affect the Indonesian economy in terms of economic growth and effects on employment, I-O analysis was used. Table 2 shows the I-O table. Miernyk (2020, p.4) defines this as “how the output of each industry is distributed among other industries and sectors of the economy”. It represents a matrix that shows all the transactions of goods and services (in a monetary unit) and the interrelation between units of economic activities or sectors within a certain area and period of time (Firmansyah, 2006). Each row in the matrix indicates how much of its output a certain sector (beside the intermediate input heading) sells to many other sectors (under the intermediate demand heading) in the economy.

**Table 2.  
Input-Output (I-O) Table**

Output Allocation		Intermediate Demand				Final Demand	Total Output	
		Production Sector						
Input Structure		1	2	...	<i>j</i>			
		Intermediate Input	Production Sector	1	$x_{11}$	$x_{12}$	...	$x_{1j}$
	2		$x_{21}$	$x_{22}$	...	$x_{2j}$	$F_2$	$F_2$
	.		.	.	.	.	.	.
	.		.	.	.	.	.	.
	<i>i</i>		$x_{i1}$	$x_{i2}$	...	$x_{ij}$	$F_i$	$X_i$
Total Primary Input			$V_1$	$V_2$	...	$V_j$		
Total Input			$X_1$	$X_2$	...	$X_j$		

Source: Cahyono and Sumargo (2005)

A simple interpretation for sector  $i$  (reading horizontally) is as follows. The economy produces  $X_i$  output. Apart from this output, amount  $x_{i1}$  is used as input for sector 1;  $x_{i2}$  is used for input for sector 2; and  $x_{ij}$  is used for input for sector  $j$  (Equation 1).

$$\sum_{j=1}^n x_{ij} + F_i = X_i \quad (1)$$

where  $x_{ij}$  represents sector  $i$  output, which is used as sector  $j$  input;  $F_i$  represents total final demand for sector  $i$ ; while  $X_i$  is total output for sector  $i$ . Following Barata (2019), we present equations 2 to 7. To draw a relationship between the output of sector  $j$  and input from sector  $i$ , a technical coefficient was developed (Equation 2):

$$a_{ij} = x_{ij}/X_j \quad (2)$$

where  $a_{ij}$  represents an intermediate input coefficient;  $x_{ij}$  represents intermediate input; and  $X_j$  is the total output of sector  $j$ . In a practical sense, the calculation of the aggregate economy uses a matrix (Equation 3).  $A$  in equation 3 indicates the input-output matrix,  $F$  reflects final demand, while  $X$  is the output.

$$A = \begin{bmatrix} a_{11} & \cdots & a_{1j} \\ \vdots & \ddots & \vdots \\ a_{i1} & \cdots & a_{ij} \end{bmatrix}, F = \begin{bmatrix} f_1 \\ \vdots \\ f_n \end{bmatrix}, X = \begin{bmatrix} x_1 \\ \vdots \\ x_n \end{bmatrix} \quad (3)$$

Equation 3 equals the matrix equation:

$$AX + F = X \quad (4)$$

Equation 4 can be transformed as follows:

$$\begin{aligned} F &= X - AX \\ F &= (I - A)X \\ X &= (I - A)^{-1}F \end{aligned} \quad (5)$$

$(I-A)^{-1}F$  is known as the Leontief inverse matrix (Miller & Blair, 2009). Using this equation, an analysis to determine any economic growth can be established.

The impact of final demand on output can be explained in equation 6:

$$\begin{aligned} X_{FT} &= (I - A)^{-1}(F - M) \\ X_{FD} &= (I - A^d)^{-1}F^d \\ X_{FT} &= X_{FD} \end{aligned} \quad (6)$$

where  $X_{FT}$  is an output formed as a result of the impact of all final demand;  $X_{FD}$  is an output formed as a result of the domestic final demand impact;  $(F-M)$  is a component of final demand (domestic); and  $F^d$  is the final demand component. Based on equation 6, an investigation of how many labors can be absorbed after additional input into an economy can be calculated as follows:

$$\begin{aligned} L &= \hat{L}X \\ L &= \hat{L}(I - A^d)^{-1}F^d \end{aligned} \quad (7)$$

where  $L$  is labour absorption as a result of the impact of all final demands;  $\hat{L}$  is the diagonal matrix of the labour coefficient; and  $X$  is the output matrix.

## IV. RESULTS AND ANALYSIS

### 4.1. Alternative Financing Guarantee Scheme

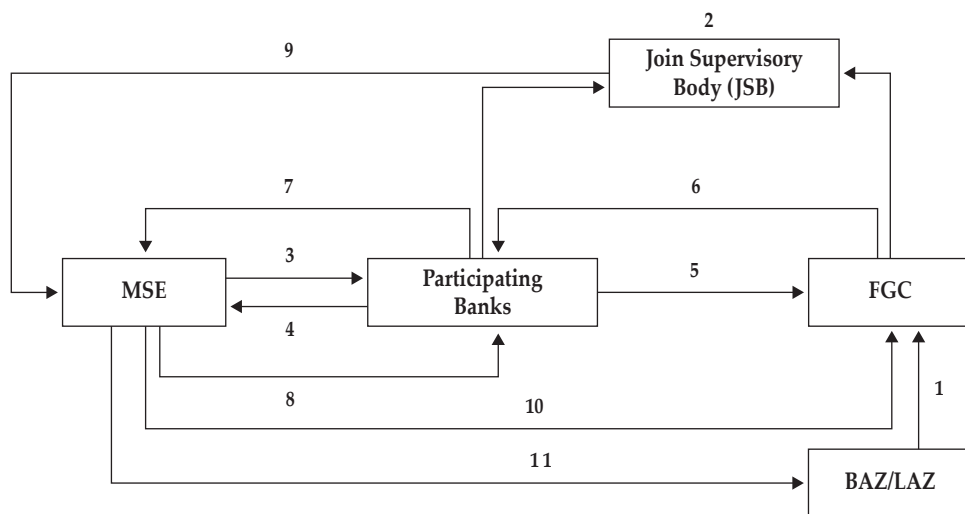
We compare the existing KUR scheme with the *Fondo di Garanzia* (applied guarantee system of Banca Etica) and a new financing guarantee scheme (FGS) is generated. Some of its notable features are shown in Table 4. The proposed FGS differs to KUR in various respects.

First, instead of being a government-supported programme, it is purely financed by the voluntary sector. Adopting the lesson from the Fondo Di Garanzia, the programme will be sponsored by ethical partners. In this case, BAZ and LAZ will act as these partners and inject part of their ZIS Funds into the MSE guarantee funds.

Second, extending the recipients of the programme to eligible farmers and cattlemen will be one of the most challenging tasks, because many banks tend to stay in their 'comfort zone' and are reluctant to face what they assume to be excessive risks. However, this has two primary advantages. First, the penetration of this new 'battleground' by Islamic banks will disprove the accusations that they generally deliver social failure (Asutay, 2007; Asutay & Zaman, 2009). Second, it will improve Islamic banks' image, as currently most people's perceptions suggest that they are in fact similar to their conventional counterparts. Theoretically, Islamic banks are encouraged to engage in more socioeconomic programmes for alleviating poverty and improving social solidarity (Chapra, 1985; Naqvi, 2003; Hamidi & Worthington, 2017).

Third, to address the potential of NPLs exceeding the 5% limit, in the monitoring and supervision of MSEs, we propose the establishment of a Joint Supervising Body (JSB) involving participating banks and the Financing Guarantee Company (FGC), intended to supervise both MSEs' managerial skills and religious approach. To conduct this task, the JSB will further involve a societal element, performing peer reviews for frequent monitoring and evaluating. This approach has been suitably handled by BTPN Syariah.

Fourth, the proposed scheme will eventually transform MSEs (both individually and as groups) and improve them in terms of efficiency, productivity and profitability. In turn, the scheme will elevate MSEs from *mustahik* (recipients of zakat) to *muzakki* (capable of providing zakat). Figure 5 shows how this scheme works.



Source: Authors' finding

Note: 1) BAZ/LAZ create Financing Guarantee Companies (FGCs) and inject them with ZIS guarantee funds; 2) The FGCs and participating banks establish a joint supervisory body (JSB), whose main task is to supervise potential MSEs after receiving loans/financing; 3) the MSE proposes financing; 4) The participating banks check the MSE's eligibility; 5) If the SME is eligible, the banks request a guarantee from the FGC; 6) The FGC issues the guarantee; 7) The banks disburse the loan/financing; 8) The MSE repays the loan installments; 9) To avoid default risk, the JSB will frequently supervise and monitor the MSE borrower, both managerially and spiritually; 10) The participating banks file a claim application for financing with collectability 4 & 5 status and upon completion of the verification, the FGC pays the claim; and 11) The SMEs are expected to be more profitable, so could pay ZIS to BAZ/LAZ.

**Figure 5.**  
**Proposed Financing Guarantee Scheme (FGS)**

**Table 3.**  
**Comparison between KUR, Fondo Di Garanzia and New FGS**

No	Characteristic	KUR	Fondo Di Garanzia (Banca Etica)	New FGS
1	Source of budget	Government	Public financing through ethical partners	ZIS collected by BAZ and LAZ
2	Recipient	<ul style="list-style-type: none"> <li>Micro, small and medium-sized businesses</li> <li>Prospective employees who will work overseas (TKI)</li> <li>Workers affected by termination of employment</li> </ul>	<ul style="list-style-type: none"> <li>Professionals and sole proprietors with up to five employees</li> <li>Partnerships; cooperatives with non-member employees, up to 10 units</li> <li>Companies that have achieved gross revenues at a total annual amount of up to 200,000 euros in the three financial years prior to the date of the request for financing</li> <li>Companies that at the date of the loan request have a debt level of up to 100,000 euros</li> </ul>	<ul style="list-style-type: none"> <li>Micro, small and medium-sized businesses</li> <li>Prospective employees who will work overseas (TKI)</li> <li>Workers affected by termination of employment</li> <li>Eligible farmers and cattlemen</li> </ul>



**Table 3.**  
**Comparison between KUR, Fondo Di Garanzia and New FGS (Continued)**

No	Characteristic	KUR	Fondo Di Garanzia (Banca Etica)	New FGS
3	Amount	<ul style="list-style-type: none"> <li>• Micro KUR (&lt;IDR25 million), Retail KUR (IDR25 million- IDR 500 million), Migrant workers (&lt;IDR25 million)</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 25,000 euros for each beneficiary</li> </ul>	<ul style="list-style-type: none"> <li>• Up to IDR100 million</li> </ul>
4	Duration	<ul style="list-style-type: none"> <li>• 3-5 years</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum of 7 years</li> </ul>	<ul style="list-style-type: none"> <li>• 3-5 years</li> </ul>
5	Repayment	<ul style="list-style-type: none"> <li>• Installments with interest rate subsidy</li> </ul>	<ul style="list-style-type: none"> <li>• Installments with a maximum quarterly frequency</li> </ul>	<ul style="list-style-type: none"> <li>• Installments with acceptable Shari'ah contract</li> </ul>
6	Guarantee	<ul style="list-style-type: none"> <li>• 70-80% of the loan</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 80% of the amount of the loan granted</li> <li>• Reduction in interest rate</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 70-80% of the loan</li> <li>• Discount on margin</li> </ul>
7	Activity that can be financed	<ul style="list-style-type: none"> <li>• All kinds of productive business (Article 3, Paragraph 2).</li> </ul>	<ul style="list-style-type: none"> <li>• Purchase of goods or services instrumental to the activity performed</li> <li>• Remuneration of new employees or working members</li> <li>• Payment for training courses</li> </ul>	<ul style="list-style-type: none"> <li>• Purchase of goods or services instrumental to the activity performed</li> <li>• Remuneration of new employees or working members</li> <li>• Payment for training courses</li> </ul>
8	Monitoring and supervision	<ul style="list-style-type: none"> <li>• Guidance and coaching from ministries or technical institutions (Permenko No 8, 2015, Article 27, paragraph 2)</li> <li>• Monitoring of KUR recipients' performance at least once every 6 months (Article 29 paragraph 2)</li> <li>• Termination of banks participation if their KUR NPL exceeds 5% 6 months in a row (Article 32, paragraph 1).</li> </ul>	<ul style="list-style-type: none"> <li>• During the investigation phase and during the repayment period, at least two of the following services are guaranteed:</li> <li>• support in defining the development strategy of the funded project</li> <li>• training in business administration techniques</li> <li>• training in the use of the most advanced technologies to increase the productivity of the business</li> <li>• support for the definition of prices and sales strategies by conducting market studies</li> <li>• support for the solution of legal, fiscal and administrative problems</li> <li>• support for the identification and diagnosis of any critical issues in the implementation of the funded project.</li> </ul>	<ul style="list-style-type: none"> <li>• Joint supervising body</li> <li>• Business approach</li> <li>• Religious approach</li> <li>• Peer approach</li> </ul>

#### 4.2. Could ZIS Funds be Used as Collateral?

Before the above-proposed scheme can operate, confirmation of whether the proposal is in accordance with Syari'ah principles needs to be made. For this purpose, virtual interviews were held with seven experts in zakat management and Syari'ah advisors from seven reputable institutions. Table 4 shows their responses.

**Table 4.**  
**Responses to using ZIS Funds as Collateral**

Interviewee	Responses		Total
	Yes	No	
R1	1	0	1
R2	1	0	1
R3	1	0	1
R4	0	1	1
R5	1	0	1
R6	1	0	1
R7	0	1	1
Total	5	2	7

Source: Authors' finding

Of the seven experts, two suggested that ZIS funds could not be used as collateral to obtain bank financing. Their opinions were as follows:

In the *Zakat Act*, *zakat* funds cannot be borrowed and used as collateral (R4).

*Zakat* funds are better distributed for productive purposes, directly to *mustahik* (who are entitled to receive them), rather than as bank collateral. Naturally, banks always develop financing in commercial schemes (R7).

After carefully examining *Zakat Act* No. 38, Year 1999 and the latest *Zakat Act* No. 23, Year 2011, it was concluded that there are no articles or paragraphs that indicate that ZIS funds cannot be used as collateral. However, R7's suggestion helps us to identify why we need to use part of it for collateral instead of just directly distributed to *mustahik*. According to the *Zakat Act*, No. 23, Year 2011, Article 27, Paragraph 1, a *zakat* fund can be distributed to support productive purposes. Many BAZ and LAZ have allocated such funds for productive economic empowerment, including assistance to MSEs; however, only a few of them have openly reported how much money was distributed for each *mustahik* or SME. Sukesti and Budiman (2018), for instance, investigated and recorded that the amount of *zakat* received for working capital was between IDR500,000 and IDR2,500,000. Using this reference, the upper limit is equal to ten times the micro-KUR loan limit. In this regard, we argue that the use of ZIS funds for collateral is likely help MSEs to obtain greater financial assistance than if the funds were directly distributed.

The interviewees who agreed on the use of ZIS funds for collateral had various views, which included:

It is permissible to give it in its entirety, let alone just use it as a guarantee (R2). ZIS funds can be distributed as collateral for SME bank financing, provided that the SME is owned by an individual or by poor persons. The fund used can be taken from the *masakin* (the poor) or *faqir* (the needy) section (R6).

Obviously, *zakat* funds can be used for guarantees. The poor who are affected by Covid-19 can receive *zakat* aimed at productive purposes (R3).

*Zakat* is clear, only for the eight *asnaf*. But you can use *infaq*, *sadaqah* and *waqf* funds as guarantees. During the time of Khalifa Umar, *zakat* was used for productive purposes such as helping camel breeders (R1).

The poor (*miskin*) and the needy (*faqir*) have the right to use *zakat* funds 'at their will', including as collateral for their business. In principle, the funds are their right which is still in the hands of the *zakat* manager (BAZ/LAZ). I have not found any restrictions on *zakat* funds as collateral (R5).

A remaining issue exists if the guaranteed SME is in default. In this case, the participating banks will file a claim to BAZ/LAS as guarantor. Accordingly, R3 suggested involving 'community officers' to help the banks monitor MSEs to prevent any default risk. In Indonesian Islamic banking, this approach has been popularised by BTPN Syariah, which has more than 5 million underprivileged but productive women as its customers (BTPN Syariah, 2019). It aims to lift them out of their situation through self-help groups (SHGs), in which some women unite as a group to support each other, such as in saving whatever little money they have to be able to regularly pay off their loans. In the group, a representative of the bank will lead the meeting and discuss their business and financial issues with participatory planning. Improvement is achieved as they can access loans without collateral and receive incremental income from their microenterprise (Krishnan et al., 2008; Jothi & Lokhande, 2008).

#### 4.3. CGS Simulation on Growth and Employment

Additional government spending of IDR5 trillion is allocated for the MSE CGS. First, we assume that the funds will be prioritised for three sectors: (1) paddy fields (sector 1); (2) financial institutions (sector 61); and (3) the food processing and preserving industry (sector 27). These sectors were selected for the study because in the pandemic environment the government has shown significant concern over strengthening food security (Nurita, 2020) and enhancing the financial sector through the intervention of digital platforms and fintech (Gunawan, 2020). Each sector spends around IDR 1.65 trillion.

**Table 5.**  
**Impact of Government's Additional CGC Funds on Economic Growth and Employment**

Indicator	Sector 1		Sector 61		Sector 27		Total Output	
	%	Output (IDR T)	%	Output (IDR T)	%	Output (IDR T)	%	Output (IDR T)
Economic Growth	0.0206	2.1729	0.0233	2.4590	0.0325	3.4207	0.0765	8.0526
Labour Absorption	%	Labour	%	Labour	%	Labour	%	Labour
	0.0086	8,078	0.0036	3,341	0.0232	21,731	0.0354	33,150

Source: Authors' finding

Table 5 shows the economic shock as an impact of the disbursement of the IDR5 trillion in the CGS. It is expected to move the economy to growth (0.076%), reaching IDR8 trillion. As a result, this will create additional wealth of IDR3 trillion in the economy, and the activities will accelerate the economy by creating employment for more than 33,000 people.

Regarding the impact of ZIS funds, as discussed earlier an additional IDR1 trillion (out of the total of IDR10 trillion) will be allocated to the FGS for MSEs so that they can access Islamic bank financing. We envisage that the funds will be disbursed in two economic sectors: sector 5 (fruit and vegetables) and sector 60 (communication and e-commerce). These sectors were first chosen to support the government's policy on food security (Nurita, 2020) and second to boost e-commerce, given that it has been the most reliable form of business during the pandemic.

Hence, each sector distributes around IDR0.5 trillion for financing MSEs.

**Table 6.**  
**Impact of ZIS Funds for the FGS in Islamic Banking on Economic Growth and Employment**

Indicator	Sector 5		Sector 60		Total Output	
	%	IDR T	%	IDR T	%	IDR T
Economic Growth	0.0055	0.5837	0.0062	0.6509	0.0117	1.2346
Labour Absorption	%	Labor	%	Labor	%	Labor
	0.0016	1,524	0.0007	627	0.0023	2,151

Source: Authors' finding

Table 6 shows additional spending of IDR1 trillion to guarantee MSE financing. It is estimated this will create economic growth of 0.0117%, or around IDR 1.235 trillion. Hence, economic agents will enjoy additional wealth of IDR 0.235 trillion. With the same amount of expenditure (IDR0.5 trillion), sector 5 absorbs more employment (1,524 workers) compared to sector 60 (627 workers). This is because e-commerce industry (sector 60) employs a smaller workforce than the agricultural sector.

## V. CONCLUSION AND RECOMMENDATIONS

### 5.1. Conclusion

This paper has addressed the Credit Guarantee Scheme (CGS) applied in the banking industry in Indonesia. We noted that the existing CGS, which operates in KUR (People's Business Credit), has notable weaknesses. First, it relies on government financing, while currently the government's capability to provide funds is severely undermined by the Covid-19 pandemic. Hence, we propose an alternative Financing Guarantee Scheme (FGS) for Islamic banking, funded by ZIS Funds.

Second, the current CGS seems to largely depend on banking participants' screening, allowing those with experience in dealing with microloans to dominate the disbursement of KUR. Only a few Islamic banks participate in the programme.

We designed the proposed FGS with a joint supervising body, in which participating banks and the Financing Guarantee Company (FGC) supervise the MSEs together, which is expected to keep NPLs at a level lower than 5%. It is not only the responsibility of bank participants to monitor the MSEs, but also the FGC, because it uses ZIS funds in the project, which should be financially and morally sound.

A simulation was conducted using IDR1 trillion (out of IDR10 trillion) ZIS funds in 2019, which was injected into MSEs in the form of FGS in Islamic banks, and showed that this would create additional economic growth of 0.0117%, or economic activities worth IDR1.2346 trillion, and provide 2,151 jobs. However, the results might be trivial if compared to the additional IDR5 trillion of the government's fund, which is expected to improve economic growth by 0.076% and create new job opportunities for 33,150 people. The greater the ZIS funds allocated for this purpose, the more beneficial they will be for MSEs. We also found that five out of seven zakat Syari'ah experts supported the proposed FGS.

## 5.2. Recommendation

We recommend that it is time for the Islamic banking industry to leave its comfort zone and provide more services to underprivileged groups (women, farmers, cattlemen etc.) and MSEs. The new proposed FGS mitigates their risk by involving ethical partners in sharing supervision of the process. This is expected to improve Islamic banks' social outcomes and improve their branding by providing more benefits for their customers and MSEs.

Regulators may find this FGS is useful in helping MSEs to develop and grow. Traditionally, BAZ and LAZ have spent and distributed the ZIS funds themselves. The proposed FGS is an early initiative and might need some improvement. Hence, we recommend that regulators facilitate a constructive debate and hold further discussions on its implementation together with Islamic bank stakeholders. Once a particular FGS mechanism has been approved, regulators will need to support it.

This study has obvious limitations, particularly regarding the simulation. We assumed that the I-O analysis would be conducted in normal conditions, while in the real Covid-19 setting it is likely to be prolonged, and the results might be not as good expected. In addition, we only interviewed a limited number of experts. Hence, future studies will have many opportunities to improve the findings.

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