

## PAPER DETAILS

TITLE: Historical Islamic Fiscal Solutions in Times of Crises and Its Contemporary Equivalences

AUTHORS: Abdalrhman KHAIR,Mahmut BILEN

PAGES: 1-24

ORIGINAL PDF URL: <https://dergipark.org.tr/tr/download/article-file/2160307>

# Historical Islamic Fiscal Solutions in Times of Crises and Its Contemporary Equivalences

Abdallahman Khair<sup>1</sup> Mahmut Bilen<sup>2</sup>

---

**Received:** 27.12.2021

**Accepted:** 10.02.2022

**Type:** Research Article

**DOI:** 10.55237/jie.1048837

---

## Abstract

The COVID-19 crisis led to great pressure on the world governments' fiscal budgets as governments scrambled to find new ways to finance and expand social protection and health programs. In order to provide for their populace, many Islamic countries had to pursue loans from international institutions. These loans have been observed to be followed by a phase of austerity that affects the access of the populace to health and education services. In this paper, the researchers seek to put forward a number of fiscal policies to finance the fiscal needs of the countries inside the Organization of Islamic Cooperation (OIC) by utilizing countries' own internal resources. By surveying the fiscal tools used by past Islamic empires during the times of plague and famine, we find that past Islamic empires used different policies that shared a distinctive characteristic, this characteristic is the voluntary and mandatory just redistribution of resources. Based on this concept, the researchers recommend the redistribution of the community resources through the early payment of zakat, extrabudgetary funds, wealth tax and the utilization of excess bank reserves.

**Keyword:** Fiscal Policy, Organization of Islamic Cooperation (OIC), Islamic Economics, Islamic History, COVID-19

**JEL Code:** H50

---

<sup>1</sup>Masters in Islamic economics and finance, Sakarya University-Turkey, E-mail: abdalrhmankhair11@gmail.com, ORCID: 0000-0003-0115-7889

<sup>2</sup> Prof.Dr., Sakarya University-Turkey, Department of economics, E-mail: bilen@sakarya.edu.tr, ORCID: 0000-0002-8512-5528

## Introduction

After a year and a half, the COVID-19 crisis led to the death of more than 3.5 million people and cost the world economy around \$3 trillion as the world GDP fell by 3.3%. The crisis nicknamed “the great lockdown” and “the great reset” has led to a disturbance in the daily lives of people and created a new reality where global shortages in supply chains were the norm. In order to protect their citizens from the virus, governments around the world tried to restrict mobility by introducing curfews and lockdowns. This has led to a diminishing economic activity and consequently diminished the revenues of governments. On the other hand, the implementation of social protection programs for households and businesses and the increase in healthcare spending caused government deficits to increase exponentially. As a result, the fiscal tools have reached their limits with the emptiness of governments’ coffers and a new set of tools was needed to counter the crisis. Advanced economies and some emerging ones opted to apply monetary solutions such as quantitative easing to solve this problem; while the advanced economies did not have to worry about the consequences of these policies, emerging countries face the dangers of high inflation and high currency fluctuations which deprives them of the free usage of monetary tools. Countries which are less monetary independent had to resort to international debtors such as the IMF and World Bank to cover the growing debt deficits. 31 out of 56 OIC countries had taken \$21.09 billion in debt and \$203 million in grants from the IMF in 2020 (IMF, 2021c). In exchange for such generous loans, the IMF required or recommended that the loaned countries take austerity measures once the COVID-19 starts to abate. These measures include higher taxes and lower spending on education and health (Oxfam International, 2020). This goes against the recommendation of the United Nations Conference on Trade and Development (UNCTAD), which sees that austerity measures are a failure that will leave the emerging economies fragile (UNCTAD, 2020). Austerity as a policy has been a great failure in lowering debt levels. An IMF study concluded that austerity raises unemployment and inequality, which lead to lower growth levels (Ostry et al., 2016). Another study by Forster et al. (2020) on 137 developing countries showed that the IMF programs lowered health system access, increased infant mortality and accentuated inequalities (Forster et al., 2020). Therefore, it’s necessary for the developing countries - including Islamic ones - to find a number of economic tools that do not rely on external debt and meet the needs of the crisis.

### 1. The Economic Effects of COVID-19 on OIC Countries

Countries inside the Organization of Islamic Cooperation (OIC) had been hit hard by the epidemic as the average GDP of OIC countries fell by 5%. Libya was affected the most with - 59.7% fall in GDP but is expected to rise the fastest in 2021 with 131% growth. The average GDP in Islamic countries was lifted by Guyana<sup>3</sup>, which is estimated to achieve a 43.4% and 16.4% rise in GDP in 2020 and 2021, respectively (IMF, 2021b). As for unemployment, the OIC countries had seen a rise in unemployment (1.05%) close to that of the world rate (1.1%), and

---

<sup>3</sup> This is due to Guyana oil discovery and production.

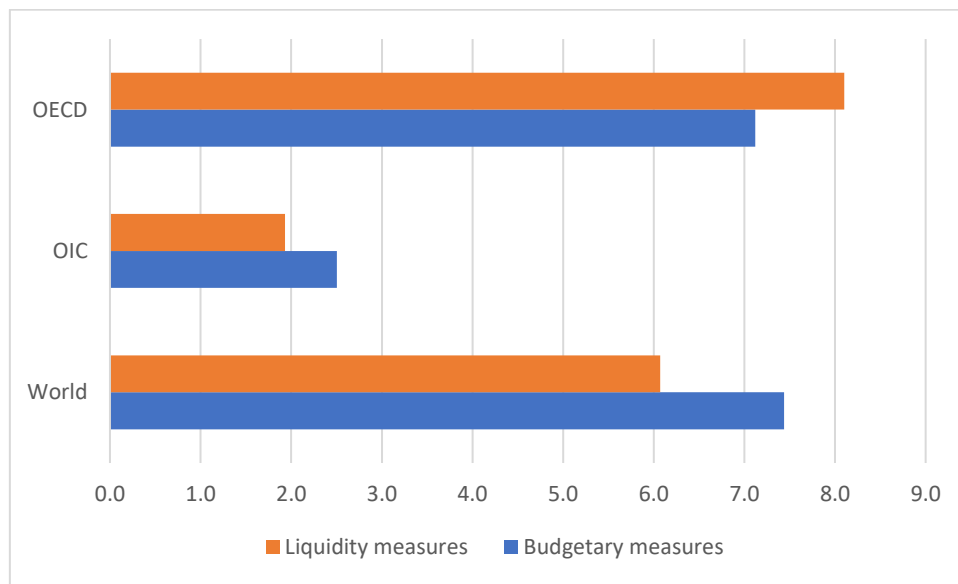
while the OECD did register the highest rise in unemployment (1.97%), the OIC countries were already struggling with high levels of unemployment compared to the OECD and the world as seen in figure (1).

**Figure (1): Average GDP and Unemployment in the OIC, OECD Countries and Globally**



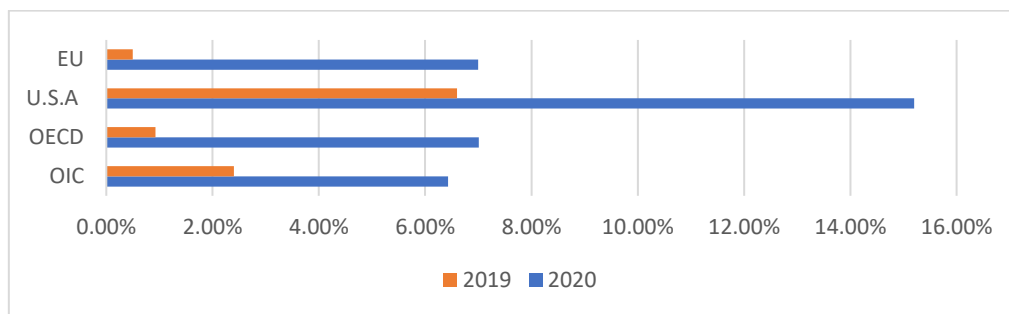
**Source: IMF and World Bank**

In order to offset the effects of the COVID-19 crisis, many countries around the globe presented or expanded different social assistance programs. Many of these programs were in the shape of grants and job protection. By the end of November 2020, about 209 countries provided 1622 social protection measures (International Labour Organization, 2020). These programs costed \$1,040 billion, including \$49.6 billion in administrative costs (Durán-Valverde et al., 2020). As seen in figure (2), Islamic countries had a very limited ability to apply these fiscal measures compared to OECD and the world.

**Figure (2): Amount of COVID-19 Policy Responses to GDP<sup>4</sup>**

**Source: IMF (2021a)**

This increase in spending, accompanied by a fall in economic activity and government revenues, led to higher fiscal deficits, as seen in figure (3). While the deficits in the OIC countries did not rise as much as in other countries, the OIC members had already high budget deficits compared to the E.U. and OECD countries. These deficits will be covered by internal and external debt financing in most OIC countries (IMF, 2021c).

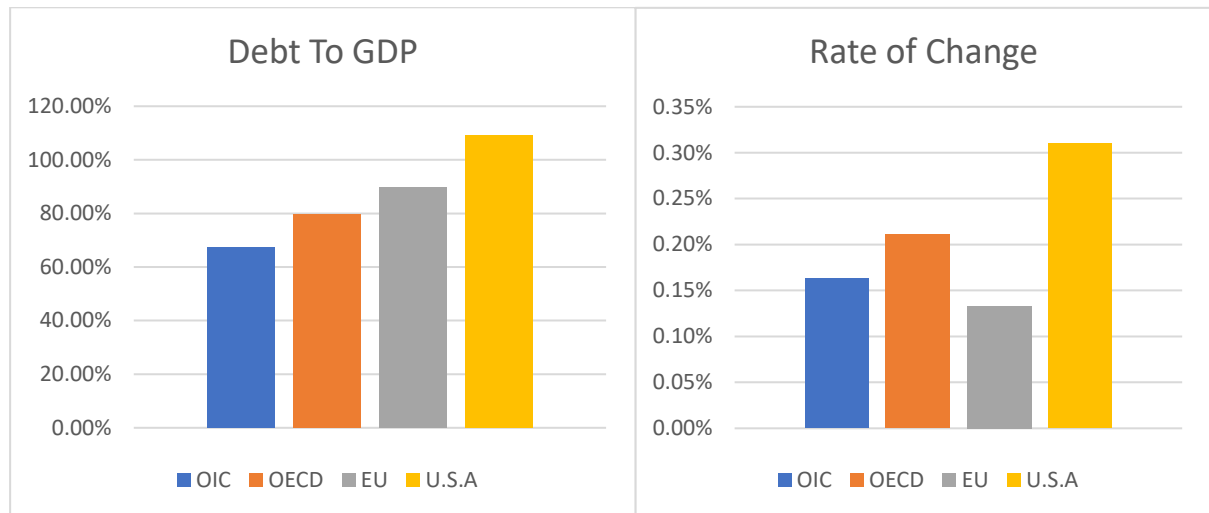
**Figure (3): Governments' Budget Deficits to GDP in the Years 2019 And 2020**

**Source: IMF, World bank, African development bank group, finance ministries and news outlets**

This rise in budget deficits was reflected in the rate of global debt to GDP. During the Great financial crises (GFC), the global debt-to-GDP increased by 10-15%. Meanwhile, the COVID-19 crisis caused the global debt-to-GDP ratio to jump by 35% (Jones, 2020). Figure (4) shows that the United States' debt was the fastest growing in 2020, followed by that of the OECD and OIC countries.

<sup>4</sup> Budgetary measures are measures such as increased spending, tax deferrals and tax cuts, while Liquidity measures are measures such as lending, loan guarantees and capital reinforcement.

**Figure (4): Rate of Debt-to-GDP in 2020**

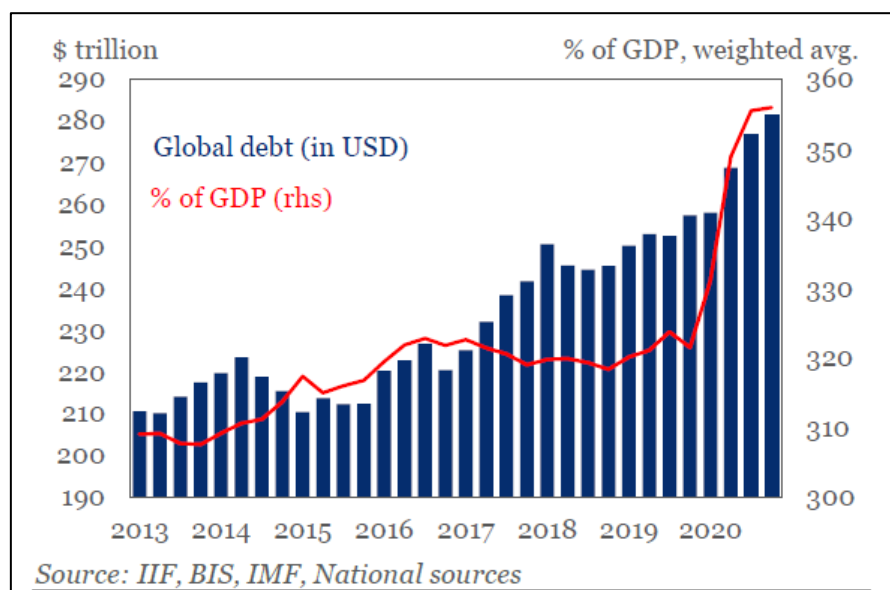


**Source: Ventura (2020)**

This rise in global debt is problematic for three particular reasons:

1-The rise in debt-to-GDP can cause a decrease in GDP growth. The World Bank puts the healthy debt to GDP ratio for developed countries at 77%. After this threshold, every 1% increase in the ratio leads to a 0.017% decrease in real GDP growth. As for emerging markets, the threshold is 64%, where the real GDP decreases by 0.02% for every 1%(Caner et al., 2010).

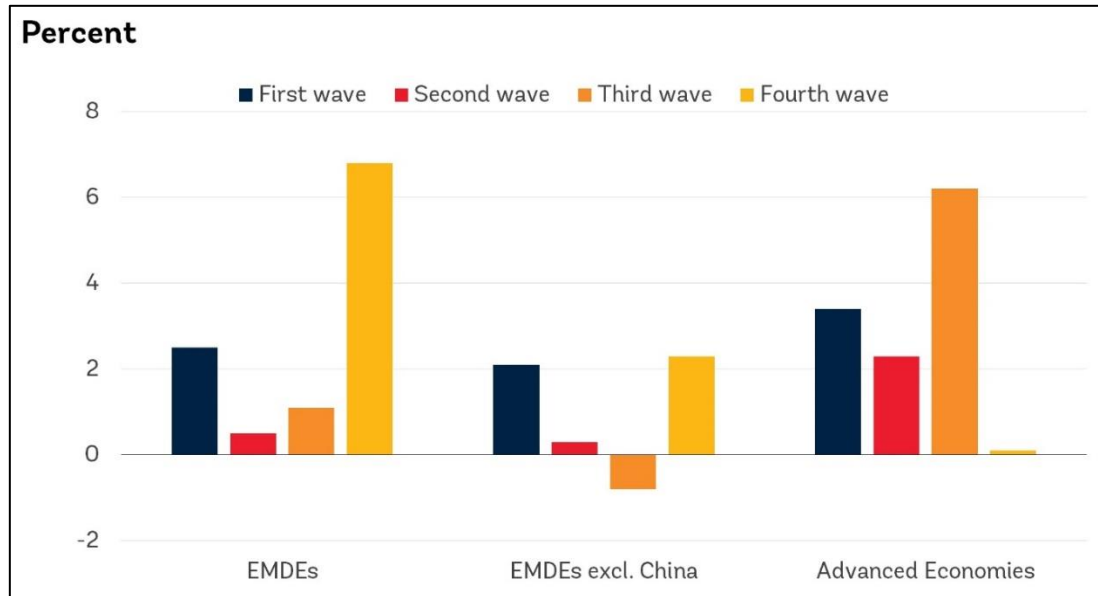
**Figure (5): Rise in Global Debt Levels**



**Source: Jones (2021)**

2-According to the World Bank, there have been four debt waves recorded in modern history since the year 1970. Three of them ended in a financial crisis for emerging and developing economies, while the fourth started in 2010 after the 2008 crisis and had been the centre of great concern(Masterson, 2021; Nagle, 2020).

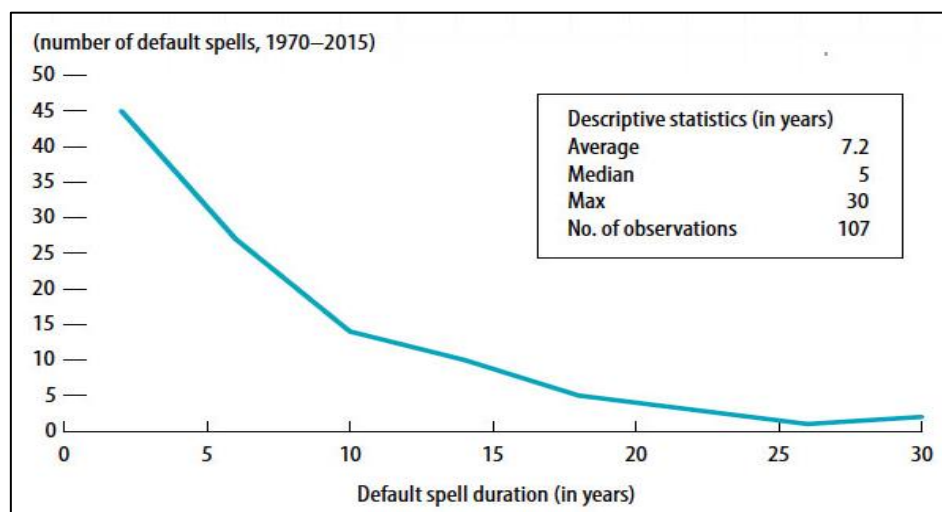
**Figure (6): Annual Average Change in Total Debt During Different Debt Waves**



**Source: Nagle (2020)**

3-Defaults have been high due to the epidemic. Argentina, Ecuador and Lebanon had already defaulted in the year 2020. These default cases are not the end. A study of 89 default cases between 1827-2003 by Reinhart and Rogoff (2009) shows that the default is always preceded by a high level of government borrowing(Reinhart & Rogoff, 2009). These default cases usually end in restructuring the debts, where the debtors gain more profits in exchange for lower payments and a longer debt reimbursement period(Bulow et al., 2020). These kinds of cases are usually handed down by vulture debtors who buy countries' bad debts and sue their governments for full payments in the courts of the U.S and U.K. (Christian Aid et al., 2020).

**Figure (7): Years Required to Solve Default Cases**



Source: Bulow et al. (2020)

## 2. A Survey of Measures Taken to Ease Economic Crisis Throughout the Islamic History

Allah said, “Most assuredly, the narratives of the people (gone by) contain lessons for the people possessed of pure and clear understanding “(12:111). In this part, we will survey a number of actions taken by the past Islamic empires and later on try to build upon them some recommendations to finance the needs of the fiscal budget in Islamic countries:

### 2.1. Mandatory Taxation

1- In the war against the Mongols, the mamluks wished to confiscate money from the people, but many scholars disagreed with this action and told the sultan that there were two conditions that must be fulfilled in order to seize private property; The first, the emptiness of the treasury (“*Bayt al-Mal*”). Second, the sultan must begin with the property of the rich before the poor and with the princes before the laymen (Al-sharbini, 1997).

2- In the times of Umar ibn al Khattab (584-644AD), a great drought came over the Arabian Peninsula and continued for nine months. The second caliph of Islam said that if the drought were to become longer, then he would take every household’s resources and divide it by half for those who could not find food (Ibn Sa’d, 1990). Thus, as a last resort, the government must tax the rich to cover the expenses (housing, clothes and food) of the poor (Ibn Hazm, 1933)

3- On the other hand, in the times of the Moroccan sultan Mohammed ben Abdallah (1757-1790AD), a famine hit Morocco, and he exempted people from taxes for four years, partly due to their inability to pay and partly due to the riots against any attempt to gather taxes (Al-Bazzaz, 1992). The Ottomans also gave tax reductions to many affected businesses (Karademir, 2014; Marien, 2009)

### 2.2. Resource Redistribution and Pricing

1- The Prophet, peace be upon him, said: “When the people of Ash’ari tribe ran short of food during the holy battles, or the food of their families in Medina ran short, they would collect all

their remaining food in one sheet and then distribute it among themselves equally by measuring it with a bowl. So, these people are from me, and I am from them.” (Al-Bukhari, 2001, v3 p138)

2- In Egypt, in the times of Al-Hakim bi-Amr Allah (985-1021), a famine struck the country. Al-Hakim distributed food and stopped any price gauging. Following that, in the days of Al-Mustansir Billah (1029-1094AD), another great famine had realized, and in order to counter it, Al-Mustansir sold everything he had, slept on the ground, ate only watered bread and ordered that no food be withheld from the granaries (Al-maqrizi, 2007) .

3- Another famine came in the times of Al-Adil Kitbugha (1294-1296AD) when a drought came over the middle east. Kitbugha ordered every prince to take a number of poor people and to cover their expenses, and it's also mentioned that the Surveyor Fakhr al-din Tanbagha had 200 acres of beans which he gave from it to whoever came to his land (Al-maqrizi, 2007)

4- Countries in the western Arabian areas (Morocco, Algeria, Tunisia and the Iberian Peninsula) were more prepared for famine and diseases by stockpiling food. Thus, these countries would appeal to three measures in times of crises: 1-distributing foods and rations, 2-pricing food products, 3-prohibition and punishment of food monopolization (Al-Bazzaz, 1992; Mazdor, 2009)

5- As for the Ottoman empire, pricing (Narh) was used repeatedly in times of economic crises (Sahillioğlu, 1967) .In addition, in order to prevent monopolization, the government would buy the surplus commodities from the markets and sell them to the people. If the people are unable to buy them at a just price, then the government donates these commodities. If these measures were not enough, the government would then proceed to seize private property (Karademir, 2014). But Ertem (2015) mentions that pricing and food distribution were not enough and that the main efforts would come from private charities and local governors (Ertem, 2015). Furthermore, besides bringing food to the famine-struck areas, a unique solution was used; the Ottomans, through the help of municipalities and rich individuals, would give jobs in road construction to those who immigrated in order to cover their needs (Aybar, 2017).

### 2.3. Loans

1- The prophet, peace be upon him, borrowed chain mails to prepare for the battle of Hunayn (Abū Dā'ūd, 2002). And many scholars also saw that the government could take interest-free loans in times of need as long as they were sure to have the ability to pay them back (Al-Ghazali, 1971; Al-Shatibi, n.d.)

2- In the Abbasid empire, the government would take loans (sometimes on interest) from the traders in times of crisis and gave in return some of its tax returns as security (Al-Duri, 1948). For example, the Persian traveller Nasir Khusraw (”ناصر خسرو”) (1004-1088) tells us that the sultan of Egypt<sup>5</sup> asked a Christian Egyptian trader for bread on the basis of a loan. (Khusraw,

---

<sup>5</sup> Most probably the sultan was Al-Mustansir Billah

1983). The first recorded loan to be taken from money lenders<sup>6</sup> in Islamic history was in the times of the minister Ali ibn Issa in his first appointment (912-916AD) (Al-Duri, 1948). The Islamic governments also loaned the farmers money and seeds (Al-Duri, 1948; Oran & Khaznakatbi, 2009)

3- As for the Ottomans, interest-bearing loans were widespread in the main cities such as Istanbul due to the existence of the local moneylenders who were prominent in the Byzantian empire and continued to exist and work under the Ottoman rule. The local money lenders would take 12%-24% of interest on loans given to the Ottoman government. Later on and due to the war of Crimea (1853-1856), the Ottoman empire reached out to the international market and took its first international loan in 1854 from the European bond market (Birdal, 2010; Genç, 2014). The act of continuous borrowing from the international market led the Ottoman empire to declare bankruptcy in 1876 and to establish the infamous Ottoman public debt administration (Duyun-u Umumiye İdaresi) (Eldem, 1999; Ortabağ, 2018)

#### 2.4. Notes on The Islamic Measures

In surveying the Islamic measures to counter the effects of different crises, many points raise interest:

- 1- The Islamic states always depend on their own inner resources. Eldem (1999) indicates that the Ottoman empire never relied on outside recourses until the middle of the 19<sup>th</sup> century when the Ottoman Empire took its first international loan (Eldem, 1999)
- 2- In general, until all the government resources have been completely used, the Islamic government does not and should not reach out to take private property.
- 3- Interest-based loans did occur in Islamic history, but they were rare in the Islamic empires before the Ottomans. And if it had occurred, it would usually occur between Muslims and non-Muslims<sup>7</sup>(Ray, 1997)
- 4- Taking interest-based loans in Morocco in the late 19<sup>th</sup> century's famines led to the disastrous result of the impoverishment and imprisonment of farmers and the empowerment of Jews and foreigners(Al-Bazzaz, 1992)
- 5- Famine and disease times have seen great immigrations from the villages and outskirts into the cities. While the free movement of peasants was allowed throughout Islamic history(Al-Bazzaz, 1992; Al-Duri, 1948), the Ottomans usually obstructed and fined such immigration (Aybar, 2017; Genç, 2014; White, 2010)
- 6- The great Egyptian historian Al-Maqrizi (1364-1442AD) indicated that many of those who monopolized food during the times of famine and drought had been struck by a godly justice as their houses burned down or encountered other types of personnel calamities. On the other

---

<sup>6</sup> These were not the usual money lenders (Sarraf-صراف), but rather a special type of moneylenders (jahbadh-جهاد) who used to preserve the money of ministers from confiscation(Al-Duri, 1948)

<sup>7</sup> Although the ottoman empire had many bankers who operated through interest-based loans, almost none of them were Muslim (Pamuk, 2000)

hand, those who shared their recourses – such as the Surveyor Fakhr al-din Tanbagha - saw great prosperity (Al-maqrizi, 2007)

### 3. Modern Islamic Approaches to Fight The COVID-19 Crises

We can observe from surveying the history of Islamic empires during times of crises that the aforementioned policies have a shared and distinctive characteristic to them that is the “**just redistribution of resources**”. Therefore, building on the idea of the just redistribution of resources, we have recommended in this part a number of fiscal policies to counter the effects of the COVID-19 crisis:

#### 3.1. Early Payment of Zakat

Zakat is one of the five tenants of Islam and one of Islamic economics’ principal welfare tools. Zakat is requested from every free adult<sup>8</sup> Muslim whose wealth has achieved a number of criteria. In order to respond to the crisis, many scholars issued a fatwa that permits paying zakat in advance before the end of the lunar year (Hawl). This will help Islamic countries access \$1 trillion worth of assets (Oxfam, 2015) to distribute among the least fortunate people in society. Interestingly, some zakat intuitions are reporting an increase in the amount of zakat received during the crisis, indicating that Muslims increased their charity work during the crisis (world zakat forum, 2020). But zakat as a tool of finance faces two hindrances:

- 1- In most countries, zakat is not mandatory by law and only mandatory in six<sup>9</sup> countries out of 54 OIC countries (Hasan, 2015). This can affect zakat flows as taxpayers are not exempt from zakat if the after-tax net wealth is still inside the quota (Nisab) (Islamweb, 2003).
- 2- Most Islamic countries don’t have centralized zakat intuitions, as the collection and disbursement of zakat is left to the public. Out of 54 OIC countries, only 16<sup>10</sup> countries have zakat institutions (Powell, 2009). A centralized zakat system is more efficient as it will facilitate better coordination between zakat flows and the targets of fiscal policy (Hudayati & Tohirin, 2010).

#### 3.2. Extrabudgetary Funds

As the Ash’ari tribe would collect all their remaining food in one sheet and then distribute it among themselves, Muslims must go beyond their duty of zakat and be willing to forgo their extra resources. This belief led to the creation of public funds where people and different intuitions would donate to these funds in order to redistribute private resources to the neediest. These kinds of funds are classified under what’s called “Extrabudgetary Funds”, which are defined as: “general government transactions, often with separate banking and institutional arrangements that are not included in the annual state (federal) budget law and the budgets of subnational levels of government” (Radev & Allen, 2010, p. 1).

---

<sup>8</sup> whither he was sane or not as the object of zakat is the owned money

<sup>9</sup> Libya, Malaysia, Pakistan, Saudi Arabia, Sudan and Yemen

<sup>10</sup> The above-mentioned countries plus Bahrain, Bangladesh, Egypt, Indonesia, Iran, Jordan, Kuwait, Lebanon, Maldives, UAE.

In response to the crisis, many countries have called for the private sector to pool their resources into public funds, and about 15 OIC countries have established such funds:

**Table (1): OIC Countries' Private Funds' Totals and Usages**

Country	Total funds Gathered (millions of dollars)	Usages
Benin	4.6 (Government of Benin, 2020)	Buying Health equipment (Government of Benin, 2020)
Cameron	40 (Kindzeka, 2020)	NA <sup>11</sup>
Iraq	0.3 (Central Bank of Iraq, 2020)	Buying raspatory devices (Central Bank of Iraq, 2020)
Jordan	131 (arabnews, 2020)	Buying raspatory devices, test kits and unemployment benefits (Jordan Times, 2020)
Lebanon	16 (Al-sharq Al-awsat, 2020)	NA
Mauritania	38 (Mauritanian news agency, 2021)	unemployment benefits and water projects (Mauritanian news agency, 2021)
Mali	1.3 (agenceecofin, 2020)	NA

<sup>11</sup> The official statement about the usages of the fund is very obscure and unclear, the governmental statement of usages was only published after an amounting pressure against the government to reveal data (Kindzeka, 2020)

Morocco	3000 (Maghrebvoices, 2020)	aiding the health sector and unemployment benefits (Maghrebvoices, 2020)
Niger	1.9 (Diallo, 2020)	aiding the health sector (Diallo, 2020)
Pakistan	9 (Mahmood, 2020)	food and tax reliefs (Mahmood, 2020)
Togo	5.7 (Dossavi, 2020)	health response measures and social support (Dossavi, 2020)
Tunisia	72 (Iman, 2020)	protective equipment and medical devices (Iman, 2020)
Turkey	244 (BizBizeyerizTÜRKİYE M, 2021)	social support for households (BizBizeyerizTÜRKİYE M, 2021)
Uganda	7 <sup>12</sup> (Khisa, 2020)	Buying vehicles and blood bank renovation (Corps, 2020)

**Source: Authors**

The IMF indicates that while the extrabudgetary funds may be established based on solid economic and political reasons, these funds go against sound fiscal policy control and discipline (Radev & Allen, 2010). This critique is not without a base, some of the funds that were created by the OIC countries lack clarity on the expenditure side, and some of them had been open for embezzlement (such as the case of Uganda and Cameroon). The greatest challenge for these funds lies in management and accountability. In order to provide accountability, the governments must provide detailed data about the amounts and usages of

<sup>12</sup> Investigations shows gross irregularities, no proper planning, hasty signing of contracts and flouting of procurement guidelines, underlining a high possibility of governmental corruption (Khisa, 2020)

the funds (such as in Turkey), and the private and civil sectors should play a role in monitoring the funds' usage (such as in Jordan and Togo).

### 3.3. Wealth Tax

This is the next stage in Islamic fiscal policy; as we have mentioned, the Islamic government should not reach into the properties of the people - rich or poor - as long as it has other options, but when the treasury (Bayt al-mal) is empty, it is the duty of the government to reallocate resources from the rich to the poor based on the Islamic principle that if there is a clash between the public and private interests, then the public interest takes precedence over the private interest (تقدم المصلحة العامة على المصلحة الخاصة) (Mecelle-i Ahkâm-ı Adliye, 2010), and also based on the actions of Hz. Umar when intended to distribute resources by taking half of the people's food and giving it to the poor during the famine.

In order to reallocate resources from the rich to the poor, a wealth tax must be introduced. The wealth tax is a tax imposed on an individual's net wealth or the market value of their total owned assets minus liabilities. In contrast, an income tax is imposed on the flow from the wealth stock (li, 2019). Currently, permanent wealth taxes are imposed only in seven<sup>13</sup> countries and vary in their return rates based on the countries' GDP's (Best Citizenships, 2020), but historically many countries, especially European ones, had a permanent wealth tax but scrapped it by the beginning of the 21st century for many reasons (Heckly, 2004):

- 1- It caused capital drain as local capital flow outwards, and foreign investment is discouraged
- 2- It entitles high costs but low returns due to it requiring a yearly scan on assets, and in comparison, other tax forms such VAT are cheaper.
- 3- It can cause double taxation as the wealth tax is imposed both on companies and personal wealth.

But what we recommend here is a one-time tax on wealth or what is called an on-off tax, such tax was used post WW1 and WW2 with decent success, especially after WW2 (O'Donovan, 2020) and recently, many countries and organizations have called for a wealth tax to finance the current fiscal deficits:

- 4- The IMF (IMF, 2021b) and the world bank (World Bank, 2021) called for a wealth tax to cover the budget deficits.
- 5- Argentina imposed a one-time tax upon people who have \$2.4 million in wealth. This tax is estimated to gather \$3.7 billion from the richest 12,000 in the country (Meredith, 2020).
- 6- A recommendation for a one-time wealth tax was suggested by a U.K. tax commission, this wealth tax is to be imposed on the current net wealth and will be paid on instalments in the period of five years (Advani et al., 2020).

Unfortunately, data on the wealth of the 10 top percentile in the OIC countries are unavailable, but according to OXFAM, the 21 billionaires of the MENA area identified by Forbes magazine

---

<sup>13</sup> Spain, Norway, Argentina, Belgium, Switzerland, Netherlands and Italy

had seen their wealth increase by \$10 billion between March and August 2020, while 45 million person in the area could be pushed into poverty.(Oxfam International, 2020).

In order to correctly apply this tax, a number of points must be considered:

**7- Tax avoidance:** in order to deter tax avoidance, the government mustn't announce the tax prematurely. An early announcement of the tax will lead the taxpayers to avoid or mitigate the taxes by changing the type or ownership of the assets they own(Advani et al., 2020)

**8- The type of taxed assets and unit of taxation:** taxable assets should include both registered tangible (ex. houses) and nontangible (ex. shares) property. As for the unit of taxation, it should be on residence in the country regardless of citizenship. It should also be imposed upon individuals, not households, as the members of the same household do not have authority over other members' fortune(Advani et al., 2020)

**9- Tax rate and threshold:** the tax rate and threshold should take asset liquidity in consideration. After surveying the taxable property, the ratio between liquid and non-liquid assets ratio in should be taken into consideration when deciding the tax rate and threshold.

**10- The gradual removal of this tax, and this is based on two reasons:**

**a.** The government has no right to the money of the rich in normal situations. The only rationale for this tax is due to the crisis. As the crisis starts to ease, the government must lower the tax until it reaches zero. Otherwise, its actions will be illegal in Islam, for Allah said "And eat not up your property among yourselves in vanity, nor seek by it to gain the hearing of the judges that ye may knowingly devour a portion of the property of others wrongfully." (2:188). In addition, while the U.K. tax commission asserts that both equal and diminishing instalments for the tax will lead to the same revenue(Advani et al., 2020), we see that the diminishing payments will help the government supply the fiscal need in a much better way as it will provide more liquidity during the initial year.

**b.** If the people believe that the tax is permanent, it will cause a distortion in the behavior of consumers, such as lower savings and a shift in wealth in order to evade tax.(Advani et al., 2020)

**c.** The tax period: the U.K. tax commission suggests a five years period for tax instalments, but we see that this period is as too long as the World Bank estimates that by 2022 the world economy will see pre-covid levels of GDP growth (World Bank, 2021). Therefore, we see that the period of five years should be taken as an initial period, but the government should seek to return the fiscal budget to its pre-covid levels before the end of the five years period and shouldn't rely on this tax for the whole period as this type of taxation is a necessary evil that Islam does not permit in normal situations.

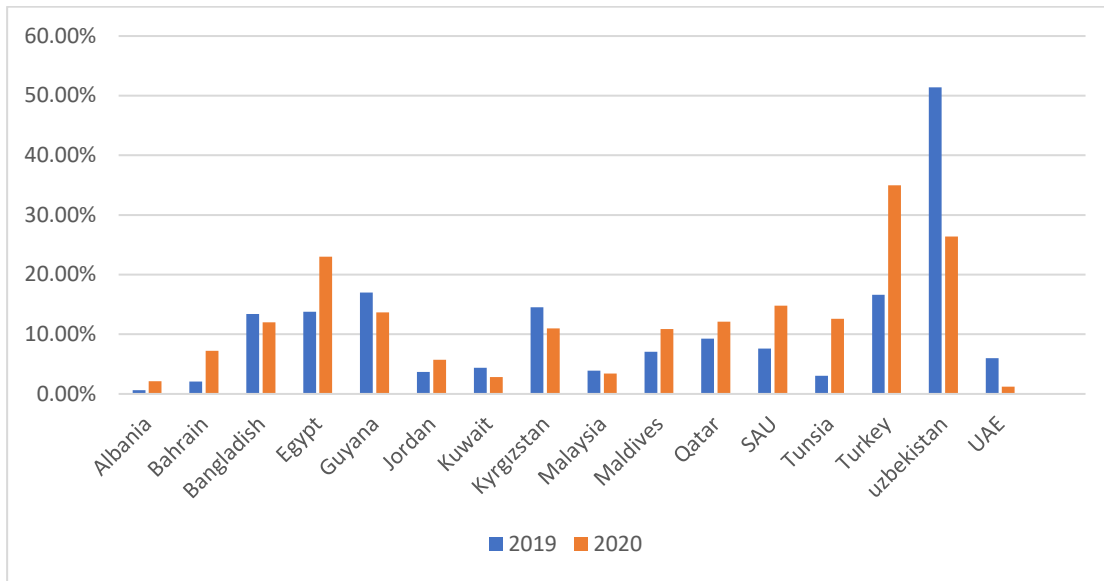
### **3.4. Using Commercial Banks' Reserves (Taxing the Banks)**

Since the great financial crisis (GFC), banks have been labelled as "Too Big to Fall", and while banks do play an important role in an economy as they offer a way to channel capital from those who have it to those who need it, different papers covering the GFC shows that banks are an inefficient tool in redistributing wealth. Michail et al. (2021) show that a lower policy

rate does not always alter the lending behavior of commercial banks in the long term, as deposit levels and credit risks take priority (Michail et al., 2021). Other papers focus on the relationship between ownership of the banks and lending behavior in emerging markets during crises, government-owned banks increase their lending and risk-taking behavior in crises times in order to stimulate the economy in a countercyclical movement (Bosshardt & Cerutti, 2020; Choi et al., 2016), in the same time foreign-owned banks tend to decrease their lending behavior in a procyclical way during crises (Allen et al., 2013; Choi et al., 2016). Hsieh & Lee (2020) indicates that there might be an inverse relationship between the two: the higher the government stimulus and intervention, the lower the lending of a foreign bank to clients during the crises and vice versa (Hsieh & Lee, 2020). Furthermore, many papers share the same sentiments that banks doesn't respond positively to government stimulus alone, Banks in Britain (Giansante et al., 2020), E.U. (Horst & Neyer, 2019; Jasova et al., 2018) and Japan (Shioji, 2019) increased its lending channels only by a small percentage or by none at all during the rounds of quantitative easing, on the other hand, banks in the U.S (Rodnyansky & Darmouni, 2017) raised their lending ratios during the first and third Q.E. on rounds, but not during the second Q.E. round, this can be attributed to the fact that banks in the E.U. area and Britain bought more safe assets which lowered the lending rates (Giansante et al., 2020; Jasova et al., 2018), While banks in the U.S expanded toward creating mortgages in order to create mortgage backed securities (MIBs) which was targeted by the Fed's 1<sup>st</sup> and 3<sup>rd</sup> Q.E. rounds, there was no effect on U.S banks' lending in the 2<sup>nd</sup> Q.E. round due to the Fed targeting only U.S treasury bonds (Rodnyansky & Darmouni, 2017). Another reason may be that liquidity is concentrated toward a sector of the economy rather than the whole economy which led to lower lending if the liquidity is bigger than the needs of the sector (Shioji, 2019)

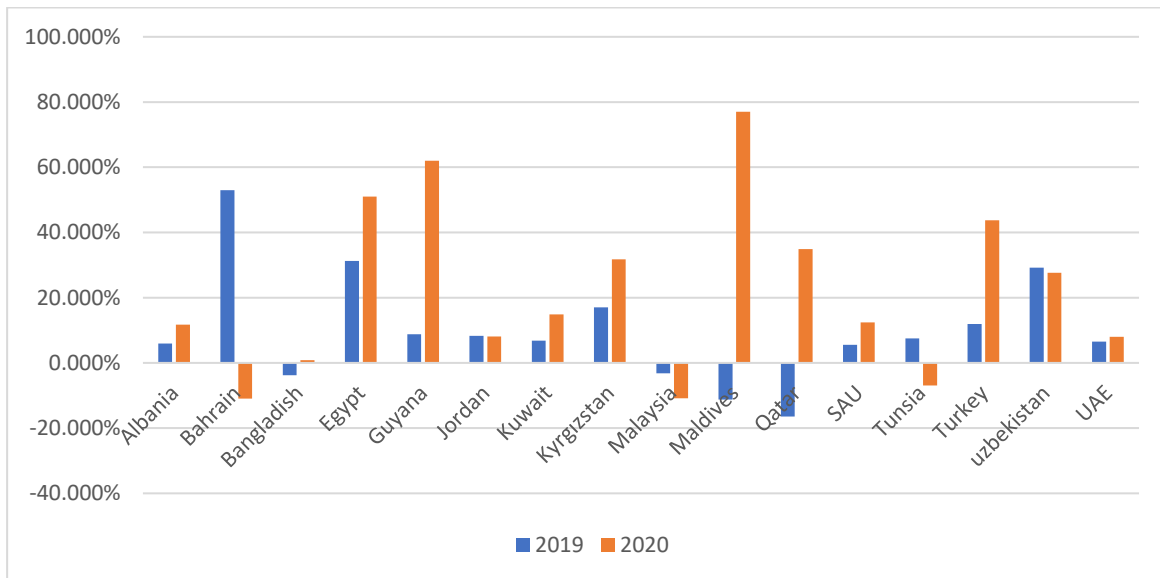
Data from the OIC countries' central banks also shows that growth in lending and credit advancing in 2020 figure (8) was accompanied by the growth of commercial banks' interest-bearing deposits at the central banks, as shown in figure (9). This indicates that while there was a rise in credit demand, the supply of credit exceeded this demand and became an unused surplus.

**Figure (8): Year-on-Year Credit Growth in Selected Countries**



Source: Data from central banks, gathered by the author

**Figure (9): Year on Year Growth of Commercial Banks' Deposits at Selected Countries' Central Banks**



Source: Data from central banks gathered by the author

In order to redistribute these unused resources, a number of options can be used:

#### 1- Delaying bank payment

Many countries differ bank payments for individuals. While – to our knowledge- there are no papers covering this subject, the IMF data on household debts shows that this policy is more effective in advanced economies than in the OIC countries. The reason is that the levels of household debt are less than 25% of the GDP in most OIC countries (IMF, 2019). Furthermore,

this action lacks justice as the liquidity had been rerouted towards those who are usually able to sustain themselves.

## 2- Raising the rate of required reserves (Taxing the banks)

Lowering the required reserve is not always the most efficient way to stimulate the economy, as changes in the rate of required reserves (RRR) alone do not affect the rate of growth (Afanasyeva & Korovin, 2020). Thus, in order to better use these liquidity surpluses, we recommend that the required reserve rate stay the same or be higher for big banks and lower for small banks. This separation is due to the evidence that smaller banks are much more responsive to stimulus than bigger banks (Allen et al., 2013; Kandah, 2021).

We recommend that these reserves be used to finance the fiscal needs of the budget. As most central banks do not pay interest on it, the required reserves are considered a de facto tax on banks in the shape of opportunity cost (Ireland, 2019; OECD, 2019). Thus, we recommend here that the central bank “taxes” the banks by raising the required reserves on big banks to levels beyond the actual rates and selling these reserves in the shape of zero-interest (Qarz Hasan) treasury bills or Sukuk to the government, with this the government can finance its needs and lower outside borrowing. But this action includes a number of risks:

3- This action is illegal or at least lacks the legal background necessary for such operations

4- This action will raise the risk of the banking system, which will lead to investment outflows, but we believe that if the reserves are used in an efficient way to start the economy, the investment will return, and the country should be affected only in the short run.

5- It puts the credibility and autonomy of the central bank at risk, but we see that the separation between the fiscal and monetary is necessary only in normal times and that the crisis justifies the breaking of some rules based on the idea that what is unlawful in Islam in normal times can be lawful in times of necessity (الضرورات تبيح المحرمات) (Mecelle-i Ahkâm-ı Adliye, 2010)

Another way to utilize these reserves could be done by creating or enabling governmental banks to give loans to those who are not usually accepted by private banks and who are targeted by the fiscal policy; aside from the prementioned risks, this action carries additional ones:

6- Lending to those who are outside the private banks targeted customer could raise the rate of risk in the financial system as the poor who are targeted by banks are considered risky borrowers (Elahi, 2004).

7- Governmental banks' performance is usually seen with scepticism, as governmental ownership redistributes the financing resources based on political and not economic reasons (Calabria, 2015), and government ownership of banks may be related to lower growth of per capita income (La Porta et al., 2002), but more recent studies show that this is not quite true, Andrianova et al. (2012) show through a cross-country study that government-owned banks played a role in raising the growth rates of GDP, especially after the GFC (Andrianova et al., 2012), Unal et al. (2007) shows that government-owned banks are as efficient as private banks

in Turkey (Unal et al., 2007). Thus, governmental intervention in the banking sector is necessary in order to redistribute the resources in a just way.

### **Conclusion**

The Islamic countries were hit hard by the epidemic, which led to a rise in the levels of unemployment and a fall in growth levels as many Islamic countries had a very limited ability to finance new social protection and health programs. Thus, they sought the help of international institutions such as the IMF, which entrapped them in long-term debts that will probably end in harmful austerity measures. This study sought to explore means by which the Islamic countries can finance the different needs of their fiscal budgets during times of crisis using their own internal resources. By surveying the history of past Islamic empires, we see that Islamic governments always used their own internal resources through voluntary and mandatory just redistribution. When the Islamic empires depended on outside resources such as loans from the international market, the Islamic empires lost their sovereignty to outsiders, such as in the case of 19<sup>th</sup> century Morocco and the Ottoman empire. Therefore, in order to escape from the same fate, the current Islamic countries should seek to justly redistribute their own internal resources. This can be done by using voluntary methods such as early payment of zakat and extra-budgetary funds or using mandatory methods such as taxation of individuals using wealth tax and banks using the required reserve rates.

## References

- Abū Dā'ūd, S. (2002). *Sunan Abu Dawood*. Ghiras for publishing.
- Advani, A., Chamberlain, E., Summers, A., & Hamberlain, E. (2020). *A wealth tax for the U.K.*
- Afanasyeva, O., & Korovin, D. (2020). The impact of reserve requirements of central banks on macroeconomic indicators. *Entrepreneurship and Sustainability Issues*, 8(1), 413–429. [https://doi.org/10.9770/jesi.2020.8.1\(29\)](https://doi.org/10.9770/jesi.2020.8.1(29))
- agenceecofin. (2020). Mali : Banque Atlantique apporte un soutien financier de 100 millions de FCFA au fonds special Covid-19. <https://www.agenceecofin.com/banque/1804-75840-mali-banque-atlantique-apporte-un-soutien-financier-de-100-millions-de-fcfa-au-fonds-special-covid-19>
- Al-Bazzaz, M. al-A. (1992). *Tarikh Al-Awbiah wa Al-Maja'at fi Al-Maghrim fi Al-Qarnin Al-Thamin wa Al-Tasi''ashar [The history of plagues and famines in morocco in the 18th and 19th century]*. Faculté des Lettres et des Sciences Humaines.
- Al-Bukhari, M. (2001). *Sahih al-Bukhari*. Dar Taouk Al-Najah.
- Al-Duri, A. A.-A. (1948). *Tarikh Al-Iraq Al-Iktisady fi Al-Qard Al-Rabi''ashar Al-Hijri [The economic history of Iraq in the fourth hijri century ]*. Al-Ma'arif.
- Al-Ghazali, A. H. (1971). *Shifa' al-ghalil [Satiation of the thirsty]*. Irshad house of printing.
- Al-maqrizi, T. A. (2007). *Ighathat Al-ummah bi-kashf Al-Ghuma[Relief for the nation in revealing sorrow ]*. ein for human and social studies.
- Al-sharbini, A. (1997). *musadarut Al-amlak fi Al-dulat Al-islmiyah asr salatin Al-mamalik [Property confiscation in times of the mamluk sultans]*. General Egyptian Book Organization.
- Al-sharq Al-awsat. (2020). *millions of donations to lebanon to fight the crisis*. <https://aawsat.com/home/article/2196106/الضائقة-الاقتصادية-الأمم-م-رغم-البنان-لمواجهة-الأزمة-في-لبنان-بالملايين-تبرعات>
- Al-Shatibi, I. (n.d.). *Al-I'tisām*. Al-Tuhid library.
- Allen, F., Jackowicz, K., & Kowalewski, O. (2013). The Effects of Foreign and Government Ownership on Bank Lending Behavior During a Crisis in Central and Eastern Europe. *SSRN Electronic Journal*, 48059. <https://doi.org/10.2139/ssrn.2287081>
- Andrianova, S., Demetriades, P., & Shortland, A. (2012). Government Ownership of Banks, Institutions and Economic Growth. *Economica*, 79(315), 449–469. <https://doi.org/10.1111/j.1468-0335.2011.00904.x>
- Arabnews. (2020). *Jordan pools \$131m in COVID-19 donation fund*. <https://www.arabnews.com/node/1682046/middle-east>
- Aybar, M. (2017). Osmanlı Devletinde Kıtık ve İç Göç: 1870-1900 Arası İç Anadolu Örneği. *Mavi Atlas*, 2(5).
- Best Citizenships. (2020). *List of Countries with Wealth Tax* . <https://best-citizenships.com/2020/12/11/list-of-countries-with-wealth-tax/>

- Birdal, M. (2010). *The Political Economy of Ottoman Public Debt*. I.B.Tauris Publishers.
- BizBizyeterizTÜRKİYEM. (2021). *bizbizyeterizTÜRKİYEM*. <https://bizbizyeteriz.gov.tr/>
- Bosshardt, J., & Cerutti, E. (2020). Why Did Public Banks Lend More During the Global Financial Crisis? In *IMF Working Papers*. <https://doi.org/10.5089/9781513546049.001>
- Bulow, J., Reinhart, C., Rogoff, K., & Trebesch, C. (2020). *The Debt Pandemic New steps are needed to improve sovereign debt workouts* (Issue September).
- Calabria, M. A. (2015). *Promises of Public Banks Don't Match Reality*. Cato Institute. <https://www.cato.org/commentary/promises-public-banks-dont-match-reality>
- Caner, M., Grennes, T. J., & Köhler-Geib, F. (Fritzi) N. (2010). Finding the Tipping Point - When Sovereign Debt Turns Bad. *World Bank Conference on Debt Management*. <https://doi.org/10.2139/ssrn.1612407>
- Central Bank of Iraq. (2020). *Central bank gather 44 million dinar to fight covid 19*. <https://cbi.iq/news/view/1469>
- Choi, M. J., Gutierrez, E., & Martinez Peria, M. S. (2016). Dissecting Foreign Bank Lending Behavior During the 2008–2009 Crisis. *Financial Markets, Institutions and Instruments*, 25(5), 361–398. <https://doi.org/10.1111/fmii.12076>
- Christian Aid, CAFOD, OXFAM, Jubilee Debt Campaign, & Global Justice Now. (2020). *Private sector debt and coronavirus in developing countries* (Issue October).
- Corps, C. (2020). *COVID-19 Funds to Procure Vehicles, Upgrade Blood Banks*. ChimpReports. [https://chimpreports.com/covid-19-funds-to-procure-vehicles-upgrade-blood-banks/?fbclid=IwAR3k-deNHPBtABLympQdJ2bkF3pw806lVxiy45AnK18lkaYqtTVB\\_us9Pxxg](https://chimpreports.com/covid-19-funds-to-procure-vehicles-upgrade-blood-banks/?fbclid=IwAR3k-deNHPBtABLympQdJ2bkF3pw806lVxiy45AnK18lkaYqtTVB_us9Pxxg)
- Diallo, M. (2020). *How is the solidarity fund against COVID-19 managed in Niger?* Studiokalangou. <https://www.studiokalangou.org/index.php/magazines/12853-comment-gere-fonds-solidarite-covid19-niger>
- Dossavi, A. (2020). *Togo: the response against Covid-19 cost 107 billion FCFA*. Togofirst. <https://www.togofirst.com/fr/gouvernance-economique/2112-7018-togo-la-riposte-contre-la-covid-19-a-coute-107-milliards-fcfa>
- Durán-Valverde, F., Pacheco-Jiménez, J. F., Muzaffar, T., & Elizondo-Barboza, H. (2020). *Financing gaps in social protection: Global estimates and strategies for developing countries in light of the COVID-19 crisis and beyond*. [https://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---soc\\_sec/documents/publication/wcms\\_740724.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---soc_sec/documents/publication/wcms_740724.pdf)
- Elahi, K. Q.-I. (2004). Are Commercial Banks Prejudiced Against The Poor? *Bangladesh Journal of Agricultural Economics*, 27(1), 37–51.
- Eldem, E. (1999). *A History of the Ottoman Bank*. Ottoman Bank Historical Research Center.
- Ertem, Ö. (2015). British Views on the Indian and Ottoman Famines: Politics, Culture, and

Morality. *RCC Perspectives*, 2, 17–28.

Genç, M. (2014). Osmanlı İmparatorluğunda devlet ve ekonomi. In *Kültür serisi* (11th ed.). Ötüken Neşriyat

Giansante, S., Fatouh, M., & Ongena, S. R. G. (2020). Does Quantitative Easing Boost Bank Lending to the Real Economy or Cause Other Bank Asset Reallocation? The Case of the U.K. In *Bank of England staff working paper* (Issue 883). <https://doi.org/10.2139/ssrn.3676508>

Giles, C. (2020). *IMF calls on rich nations to boost public investment*. Financial Times. <https://www.ft.com/content/fc7ad858-0fdd-401e-bce5-796a8353ba30?shareType=nongift>

Government of Benin. (2020). *CORONAVIRUS – Plus de 2.6 milliards de FCFA de dons financiers et des milliers de matériels et équipements médicaux déjà reçus*. <https://www.gouv.bj/actualite/733/coronavirus—plus-2.6-milliards-fcfa-dons-financiers-milliers-materiels-equipements-medicaux-deja-recus/>

Hasan, S. (2015). *Human Security and Philanthropy: Islamic Perspectives and Muslim Majority Country Practices*. Springer.

Heckly, C. (2004). *Wealth Tax in Europe : Why the Decline?*

Horst, M., & Neyer, U. (2019). *The Impact of Quantitative Easing on Bank Loan Supply and Monetary Policy Implementation in the Euro Area*. <https://doi.org/10.1787/qna-v2018-3-38-en>

Hsieh, M. F., & Lee, C. C. (2020). Foreign bank lending during a crisis: The impact of financial regulations. *Economic Systems*, 44(3), 100791. <https://doi.org/10.1016/j.ecosys.2020.100791>

Hudayati, A., & Tohirin, A. (2010). Management of Zakah : Centralised Vs Decentralised Approach. *Seventh International Conference – The Tawhidi Epistemology: Zakat and Waqf Economy, Bangi 2010*, 351–374.

Ibn Hazm, A. (1933). *Muhallah [The Adorned Treatise]*. Al-Matba'a Al-Muniriyyah.

Ibn Sa'd, M. (1990). *Al-Tabaqat Al-Kubra [The Major Classes]*. Dar al-kutub al-ilmiah.

Iman, A. (2020). 72 million dollar to help covid 19 patients. Alaraby. <https://www.alaraby.co.uk/society/تونس-72-مليون-دولار-لعلاج-مصابي-كورونا-رغم-شح-التبرعات>

IMF. (2019). *Global Debt Database - Household debt, loans and debt securities*. [https://www.imf.org/external/datamapper/HH\\_LS@GDD/CAN/GBR/USA/DEU/ITA/FRA/JPN](https://www.imf.org/external/datamapper/HH_LS@GDD/CAN/GBR/USA/DEU/ITA/FRA/JPN)

IMF. (2021a). *Fiscal Policies Database*. <https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19>

IMF. (2021b). *Fiscal Report Apr-2021*.

IMF. (2021c). *IMF Financing and Debt Service Relief*. <https://www.imf.org/en/Topics/imf-and-covid19/COVID-Lending-Tracker>

International Labour Organization. (2020). *Social Protection Platform*. <https://www.social->

protection.org/gimi/ShowWiki.action?id=3417

Ireland, P. N. (2019). Interest on reserves: History and rationale, complications and risks. *Cato Journal*, 39(1), 327–337.

Islamweb. (2003). *Fatwa no.38415* . <https://www.islamweb.net/ar/fatwa/38415/>

Jasova, M., Mendicino, C., & Supera, D. (2018). Rollover Risk and Bank Lending Behavior: Evidence From Unconventional Central Bank Liquidity. *SSRN Electronic Journal*, 267. <https://doi.org/10.2139/ssrn.3216733>

Jones, M. (2020). *COVID response drives \$24 trillion surge in global debt: IIF*. Reuters. <https://www.reuters.com/article/us-global-debt-iif-idUSKBN2AH285>

Jones, M. (2021). *COVID response drives \$24 trillion surge in global debt: IIF*. Reuters. <https://www.reuters.com/article/us-global-debt-iif-idUSKBN2AH285>

Jordan Times. (2020). *Gov't approves allocation of JD10m from Himmat Watan Fund to equip field hospitals*. <https://www.jordantimes.com/news/local/govt-approves-allocation-jd10m-himmat-watan-fund-equip-field-hospitals>

Kandah, A. (2021). *The legal required reserve is an effective monetary policy tool* . Jordan Times. <https://www.jordantimes.com/opinion/adli-kandah/legal-required-reserve-effective-monetary-policy-tool>

Karademir, Z. (2014). *İmparatorluğun Açlıkla İmtihanı Osmanlı Toplumunda Kıtliklar (1560-1660)*. Kitap Yayınevi.

Khisa, I. (2020). *Billions of COVID-19 response money lost?* Independent-Uganda. <https://www.independent.co.ug/billions-of-covid-19-response-money-lost/>

Khusraw, N. (1983). *Safarnama [The Book of Travels]*. Dar al-kutub al-Jadid.

Kindzeka, M. (2020). *Cameroon Citizens Raised \$40M for COVID Relief, But Where is It? | Voice of America - English*. <https://www.voanews.com/covid-19-pandemic/cameroon-citizens-raised-40m-covid-relief-where-it>

La Porta, R., Lopez-De-Silanes, F., & Shleifer, A. (2002). Government ownership of banks. *Journal of Finance*, 57(1), 265–301. <https://doi.org/10.1111/1540-6261.00422>

Li, H. (2019). *Comparing Wealth Taxes and Income Taxes*. Tax Foundation. <https://taxfoundation.org/comparing-wealth-taxes-and-income-taxes/>

Maghrebvoices. (2020). *Moroccan Covid-19 fund exceeds 3 billion dollars*. <https://www.maghrebvoices.com/morocco/2020/07/18/-3-موارد-صندوق-تدبير-الجائحة-في-المغرب-تفوق-3-مليارات-دولار>

Mahmood, A. (2020). *Rs 1.49bn deposited in PM's corona relief fund: Faisal Javed* . Pakistan Business Recorder. <https://www.brecorder.com/news/589890/>

Marien, G. (2009). *The black death in early Ottoman territories: 1347-1550*. Bilkent University.

- Masterson, V. (2021). *Learn from history, says World Bank as global debt soars* . World Economic Forum. <https://www.weforum.org/agenda/2021/01/covid-global-debt-history-world-bank-imf/>
- Mauritanian news agency. (2021). *The meeting of the National Committee to follow up the implementation of the fund for social solidarity and combating the Coronavirus*. <https://www.ami.mr/Depeche-66868.html>
- Mazdor, S. (2009). *Al-Maja'at wa Al-Awbiah fi Al-Maghrab Al-Awsat (Famine and disease in the middle west)*. Université Constantine.
- Mecelle-i Ahkâm-ı Adliye. (2010).
- Meredith, S. (2020). *Argentina passes tax on the super-rich to help pay for Covid response*. CNBC. <https://www.cnbc.com/2020/12/07/argentina-passes-tax-on-the-super-rich-to-help-pay-for-covid-response.html>
- Michail, N. A., Savva, C. S., & Koursaros, D. (2021). Are central banks to blame? Monetary policy and bank lending behavior. *Bulletin of Economic Research*, November, 1–18. <https://doi.org/10.1111/boer.12273>
- Nagle, P. (2020). *Why the recent debt buildup is a concern, in four charts*. World Bank Blog. [https://blogs.worldbank.org/voices/why-recent-debt-buildup-concern-four-charts?cid=ECR\\_E\\_NewsletterWeekly\\_EN\\_EXT](https://blogs.worldbank.org/voices/why-recent-debt-buildup-concern-four-charts?cid=ECR_E_NewsletterWeekly_EN_EXT)
- O'Donovan, N. (2020). *One-off wealth taxes: what can we learn from history?* . Economics Observatory. <https://www.economicsobservatory.com/one-wealth-taxes-what-can-we-learn-history>
- OECD. (2019). *Reserve Requirements: Current Use, Motivations and Practical Considerations*.
- Oran, A., & Khaznakatbi, K. (2009). The Economic System under the Abbasids Dynasty. In *The Encyclopedia of Islamic Economics* (Vol. 2, pp. 257–266).
- Ortabağ, E. (2018). *Osmanlı İmparatorluğu' nda Bankacılığın Gelişimi ve Regülasyon*. Türkiye Bankalar Birliği.
- Oxfam. (2015). *1/4 of the world's people already subject to large annual wealth tax to tackle poverty. Has anyone told Piketty?* . <https://oxfamblogs.org/fp2p/i-just-found-out-that-a-quarter-of-the-global-population-already-pays-an-annual-wealth-tax-has-anyone-told-piketty/>
- Oxfam International. (2020). *MENA billionaires' wealth increased by \$10 billion, enough to pay Beirut blast repair bill* . <https://www.oxfam.org/en/press-releases/mena-billionaires-wealth-increased-10-billion-enough-pay-beirut-blast-repair-bill>
- Pamuk, Ş. (2000). *A Monetary History of the Ottoman Empire*. Cambridge University Press. [https://doi.org/10.1016/S0065-2113\(08\)60505-2](https://doi.org/10.1016/S0065-2113(08)60505-2)
- Powell, R. (2009). Zakat: Drawing Insights for Legal Theory and Economic Policy from Islamic Jurisprudence. *University of Pittsburgh Tax Review*, 7(43).

- Radev, D., & Allen, R. (2010). Extrabudgetary Funds. In *Technical Notes and Manuals*. <https://doi.org/10.5089/9781455279470.005>
- Ray, N. D. (1997). The Medieval Islamic System of Credit and Banking: Legal and Historical Considerations. *Arab Law Quarterly*, 12(1).
- Reinhart, C. M., & Rogoff, K. S. (2009). *This Time is Different: Eight Centuries of Financial Folly*. Princeton University Press.
- Rodnyansky, A., & Darmouni, O. M. (2017). The effects of quantitative easing on bank lending behavior. *Review of Financial Studies*, 30(11), 3858–3887. <https://doi.org/10.1093/rfs/hhx063>
- Sahillioğlu, H. (1967). Osmanlılarda Narh Muessesesi ve 1525 Yılı Sonunda İstanbul'da Fiyatlar. *Belgelerle Türk Tarihi Dergisi*, 1, 36–63.
- Shioji, E. (2019). Quantitative 'flooding' and bank lending: Evidence from 18 years of near-zero interest rate. *Journal of the Japanese and International Economies*, 52(January), 107–120. <https://doi.org/10.1016/j.jjie.2019.01.003>
- Unal, S., Aktas, R., & Acikalin, S. (2007). A comparative profitability and operating efficiency analysis of state and private banks in Turkey. *Banks and Bank Systems*, 2(3), 135–141.
- Ventura, L. (2020). *The World's Most Indebted Governments 2020* . Global Finance Magazine. <https://www.gfmag.com/global-data/economic-data/public-debt-percentage-gdp>
- White, S. (2010). Rethinking Disease in Ottoman History. *International Journal of Middle East Studies*, 4(42).
- World bank. (2021). *Global outlook*.
- World Bank. (2021). *A wealth tax to address five global disruptions*. <https://blogs.worldbank.org/governance/wealth-tax-address-five-global-disruptions>
- World zakat forum. (2020). *Zakat in time of covid-19 pandemic: evidence from world zakat forum*.