COVID-19 LOCKDOWN: WERE ALGERIAN HOUSEHOLDS FINANCIALLY PREPARED FOR AN INCOME LOSS?

Imed **CHERABI**[*]
Seif Eddine **REHAILIA**[**]
Amar **BENMALEK**[***]

SUMMARY

The paper aims to assess the financial preparedness of Algerian households who lost their income during COVID-19 lockdown. Data consisted of 3926 households surveyed across the 48 provinces of Algeria. Results have shown that 37.5% of households were caught completely off-guard, and were completely unprepared. 56.3% of households were lacking preparedness and would thus feel the financial stress with each additional day into the lockdown. Only 6.2% of households were fully prepared for an income loss and would be able to survive the lockdown without their primary income source and without having to borrow money or ask for help from others.

KEYWORDS: COVID-19, household, Algeria, financial preparedness, income shock.

JEL CLASSIFICATION: D14, D90

---

[*] GMES laboratory, University of Constantine 2, imed.cherabi@univ-constantine2.dz.

[**] University of Souk Ahras, s.rehailia@univ-soukahras.dz, Algeria.

[***] University of Constantine 2, amar.benmalek@univ-constantine2.dz, Algeria.

الحجر الصحي الخاص بكوفيد-19:

هل كانت الأسر الجزائرية مستعدة ماليا لفقدان دخلها؟

ملخص

يهدف المقال إلى تقييم الاستعداد المالي للأسر الجزائرية التي فقدت دخلها خلال فترة الحجر الصحي الخاصة بجائحة كوفيد-19. تمثلت عينة الدراسة في 3926 أسرة جزائرية موزعة عبر 48 ولاية. أشارت النتائج إلى أن 37.5% من الأسر لم تكن محضرة ماليا لفقدان دخلها على الإطلاق لتتلقى بذلك الصدمة بشكل مباشر، بينما 56.3% من الأسر لم تكن محضرة بالشكل اللازم ما يجعلها تحت ضغط متزايد مع كل يوم إضافي من الحجر الصحي. في حين تشير الدراسة إلى أن 6.2% فقط من الأسر كانت مستعدة بالشكل اللازم ما يمكنها من الصمود بدون مداخيل دون اللجوء إلى الاقتراض أو طلب المساعدة من الغير.

كلمات مفتاحية: كوفيد-19، الأسرة، الجزائر، الاستعداد المالي، صدمة الدخل.

تصنيف جال: D90، D14

CONFINEMENT LIÉ À LA COVID-19 : EST-CE QUE LES MÉNAGES ALGÉRIENS ÉTAIENT FINANCIÈREMENT PRÉPARÉS À UNE PERTE DE REVENU ?

RÉSUMÉ

L'article évalue la préparation financière des ménages algériens qui ont perdu leurs revenus pendant la période de confinement liée à la COVID-19. Les données comprenaient 3926 ménages enquêtés à travers les 48 wilayas d'Algérie. Les résultats montraient que 37,5% des ménages ont été pris au dépourvu et n'étaient pas préparés du tout. 56,3% des ménages manquaient de préparation et ressentiraient ainsi le stress financier avec chaque jour supplémentaire de confinement. Seuls 6,2% des ménages étaient pleinement préparés à une perte de revenu et pourraient survivre sans leurs revenus et sans avoir à emprunter de l'argent ou à demander de l'aide à autrui.

MOTS CLÉS : COVID-19, ménage, Algérie, préparation financière, choc de revenu.

JEL CLASSIFICATION: D14, D90

INTRODUCTION

Households' financial preparedness for income shocks and expenditure shocks has always been at the center of interest of financial literacy specialists. From a probabilistic viewpoint, these events are highly unpredictable. However, they are more likely to occur across all households -either on a personal, national, or international level, as it is the case with COVID-19 lockdown- regardless of how solid their financial situation is.

A significant amount of studies conducted by international organizations, researchers, and personal finance professionals have indicated that large proportions of households across any given country are still lacking financial preparedness and are living pay-check to pay-check. These households are generally unable to cover

their living expenses in case of an income loss for more than one month without having to borrow money or ask for support from others. In the case of Algeria, fewer studies have tackled the issue of households' financial preparedness. Those that realized to do so have ended up drawing, if not worse, similar conclusions.

Such a fragile situation leaves Algerian households completely vulnerable to short-term income shocks that might occur from time to time. In order to limit the spread of COVID-19, Algerian authorities opted for a partial lockdown, leaving a significant proportion of households, totally or partially, without their income. Apart from the state sector, all other sectors were negatively affected. Algerian households were caught completely off-guard, as they were not financially prepared for such a situation. Therefore, we seek to assess the financial preparedness of Algerian households who lost their income during the COVID-19 lockdown by answering the following central question:

Were Algerian households financially prepared for an income shock?

The study also aims to answer the following questions:

RQ1: How much income did the affected households lose because of the lockdown?

RQ2: How long can households survive on their means throughout the lockdown?

RQ3: How are households planning to cover their living expenses during the lockdown?

The central hypothesis of the study suggests that Algerian households were not financially prepared for an income loss. The remaining hypotheses are:

H1: The affected households have lost the totality of their income.

H2: Most households cannot survive on their means for more than one month.

H3: Most households will go into debt in order to cover their living expenses.

To answer these questions, we have organized the paper as follows: The first part provides the theoretical framework necessary

for a proper understanding of the paper. The second part provides a brief overview of previous studies on financial preparedness. The third part presents the methods and data used. The fourth part is dedicated to the presentation and discussion of the results. Finally, conclusions are drawn in the last part.

1- THEORETICAL FRAMEWORK

We define financially prepared households based on three criteria, namely: (i) not holding any kind of debt; (ii) having an emergency fund that covers at least three months of living expenses; and (iii) regularly contributing to social security. While not all of these criteria have the same weight in the current COVID-19 lockdown, failing to satisfy any of these is synonymous with being financially ill-prepared.

1.1- Definition of household debt

Before we define household debt, it is essential to clarify that a household is: "A small group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food" (United Nations, 1998). From a personal finance perspective, we consider married couples living under the same roof as separate households (*e.g.* married sons living with their parents, which is a common pattern in Algeria).

OECD (2020) defines household debt as: "All liabilities of households (including non-profit institutions serving households) that require payments of interest or principal by households to the creditors at fixed dates in the future". This definition includes but is not limited to debt from financial institutions, non-financial institutions (housing programs and employers), friends, and family.

1.2- Definition of an emergency fund

Johnson and Widdows (1985) define an emergency fund as: "The ensemble of financial holdings which are available to cover spending in the event of an emergency (income disruption) without drastically adjusting the household's current level of living". They outline three measures of emergency fund holdings that vary in terms of liquidity.

In this study, we have focused on liquid emergency funds in the form of cash purposely kept separately from other funds that the household might detain.

1.3- Definition of social security

The term "social security" is generally defined as: ″The protection that a society provides to individuals and households to ensure access to health care and to guarantee income security, particularly in cases of old age, unemployment, sickness, invalidity, work injury, maternity or loss of a breadwinner″ (ILO, 2001).

2- EMPIRICAL EVIDENCE

Studies regarding the financial preparedness of households to face negative income shocks are either conducted internationally or nationally. While the former allow for cross-country comparison, the latter allow for in-depth analysis.

Internationally, financial preparedness has been investigated as part of broader financial literacy surveys. Klapper, Lusardi, and Van Oudheusden (2015) provided insights about The S&P Global FinLitSurvey, where more than 150,000 adults across 148 countries have been interviewed. They show that only 57% of adults on average can save money either for emergencies or for other purposes. OECD (2016) surveyed 51,650 adults across 30 countries and found that four in ten respondents had not saved in the last 12 months; around six in ten respondents (59%) were active savers.

Nationally, Loke (2017) measured the financial vulnerability of 854 Malaysian households based on the "debt-to-income ratio" and the "size of the emergency fund". He concluded that: "In addition to socio-economic factors, other factors such as risk tolerance, savings portfolio, and individuals' objectives and subjective financial knowledge can significantly explain differences in the levels of individual financial vulnerability". The lack of financial preparedness has also been documented decades ago across many developed countries in (Johnson and Widdows, 1985) and (Huston and Chang, 1997) not to cite many.

More recently, Dauda et al. (2020) tackled the issue of the financial resilience of Nigerian households during the COVID-19 lockdown. They found that more than half of households had their income significantly decline and that only 41.7% of households had an emergency fund.

When it comes to Algeria, most of the studies conducted have only focused on households' savings and households' economics from a microeconomic perspective. However, to the best of our knowledge, few researchers have addressed the issue of financial preparedness from a financial literacy or personal finance perspective. In that sense, Cherabi (2018) assessed the financial preparedness of Algerian individuals who have reached the age of retirement and found that one out of two individuals could not survive on their means for more than one month in case of income loss. Today, the COVID-19 lockdown has presented the opportunity for further analysis.

3- METHODS

This paper aims to assess the financial preparedness of Algerian households based on a larger dataset collected separately by Cherabi (2020) during the COVID-19 lockdown. This dataset investigates multiple facets linking Algerian households, personal finance, and Covid-19 lockdown. Up until now, this is the first conducted paper based on this particular dataset.

3.1- Study variables

The survey[2] has been designed based on (OECD, 2018) methodology. Besides filter and quality check questions[3] that have not been included in the current analysis, we have extracted four different groups of variables from the overall dataset:

Section I aims to collect socio-demographic data about the studied sample, namely (i) household size; and (ii) province of residence.

Section II aims to collect data concerning the financial situation of the respondents before and after the lockdown. It includes (i)

---

[2] See appendix.
[3] Survey questions were in Arabic.

household income, (ii) percentage of income lost; (iii) sector of activity; and (iv) professional situation within their respective sectors.

Section III contains questions that will allow us to assess the financial preparedness of the surveyed households, namely (i) relationship with debt; (ii) existence of an emergency fund; and (iii) enrolment into social security.

Section IV pushes further and tries to understand how the surveyed households plan to manage their finances during the lockdown. It aims to find out more about: (i) households' ability to survive without their main source of income; (ii) households' ability to cover a moderate but unexpected expense; (iii) households plan to cover their expenses during the lockdown.

3.2- Data

In this section, we report details regarding both the population in question and the studied sample.

3.2.1. Population of the study

The population of the study consists of every Algerian household suffering an income loss because of the COVID-19 lockdown. According to Helgilibrary (2020), the total number of households in Algeria has reached 7.72 million by 2019. However, it is not possible at the time being to determine the exact number of households that have lost part or all of their income during the COVID-19 lockdown, especially that no official report regarding this matter was published. As a result, the exact size of the targeted population remains unknown.

3.2.2. Sample of the study

Social distancing practices have made it inevitable to rely on online-based surveys. The study was conducted between May 20th and May 24th, 2020, or about 60 days since the beginning of the COVID-19 lockdown[4].

The survey has randomly been shown to 518,760 internet users ranging from 18 to 65+ years old, across all 48 provinces of Algeria.

---

[4] March 23rd, 2020.

The sample includes both urban and rural areas, and it is likely to ensure national representativeness. Only one answer per household was requested. 4228 respondents submitted their answers. After quality control, only 3926 answers were considered valid.

While online surveys allow for a broader coverage across areas as large as Algeria in record time, it still contains many drawbacks. Duffy et al. (2005) compared data from online and face-to-face surveys and found varying differences in favor of face-to-face surveys. However, Kellner (2004) stipulated that face-to-face surveys are not perfect either, and cannot be considered as a reliable reference for comparison. It is also important to note that a significant number of respondents tend to avoid talking about their finances face-to-face with people they do not know, *i.e.*, interviewers, and would feel much more comfortable answering the survey anonymously (OECD, 2018).

Lusardi and Mitchell (2014) have also pointed out that "Any measure of financial literacy is likely to be affected by measurement errors. On the one hand, people may simply guess the answers at random, and on the other hand, people may misunderstand questions". In that particular sense, the dataset was built, following the (OECD, 2018) guidelines for online surveys. Questions were kept short, easy, and unambiguous. Moreover, online assistance was provided to the respondents through email and live discussion. Finally, in order to overcome these limitations, the survey contained multiple filter questions.

Another drawback for online surveys is about respondents who have low to no internet access, especially those below the poverty level. The central hypothesis of the study stipulates that most households lack financial preparedness. Thus, we believe that our results could probably be used to draw conclusions regarding even poorer households.

According to Cochrane's formula[5], a sample size of 385 households would have been sufficient to reach a margin error of 5% at 95% confidence level. However, because of the previously discussed notes, the sample of the study was enlarged. With a sample of 3926

---

[5] See: (Cochran, 1963)

respondents, we are 99% confident that the generalization of the findings on the overall population would remain within ±2% error.

4- RESULTS AND DISCUSSION

The software package used to analyze the data is SPSS 22. Results are presented variable by variable, with respect to the previously mentioned structure.

4.1- Socio-demographic breakdown of the sample

Before presenting the main findings, it is vital to understand the particularities of the studied sample.

4.1.1. Size of household

The dataset comprises households of different sizes according to characteristics that are specific to Algeria. As shown in Figure 1, the household size appears to be normally distributed across the sample, where 61.5% of households are composed of three to six members. 22.6% are composed of six members or higher. Only 16% are composed of two or less members.

Household size is of particular importance in the current context as it allows us to emphasize the financial burden that households may endure. It would seem that the larger a household is, the more financially vulnerable it will be, especially if not prepared adequately. With the same income, a household of bigger size may be under pressure much faster than a household of a smaller size.

Figure 1. Households distribution by size
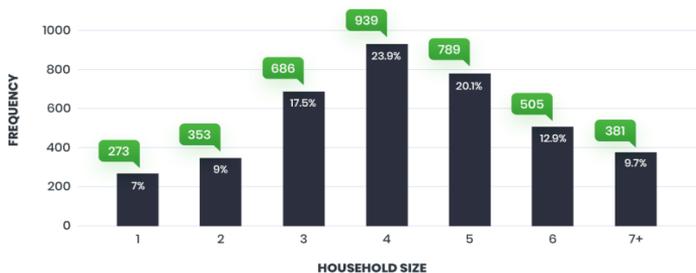
Source: elaborated by the authors based on SPSS 22 outputs

4.1.2. Province of residence

Table 1 (See appendix) lists how the 3926 respondents are distributed across all 48 provinces of Algeria. It seems likely that the sample is representative enough, and no region, either it is urban or rural, has been excluded. Such a reach would undoubtedly allow us to draw significant conclusions at the national level. A large sample would also help policymakers make informed decisions concerning the duration of the lockdown and the optimal way to provide help for the affected households.

4.2- Financial situation

We have relied on four variables from the overall dataset to provide insights regarding households' financial situation before and after the lockdown[6]. More precisely, we have provided answers about how the lockdown influenced that situation, namely, household income and percentage of income lost because of the lockdown. Information regarding the sector of activity and the professional situation have also been brought into details.
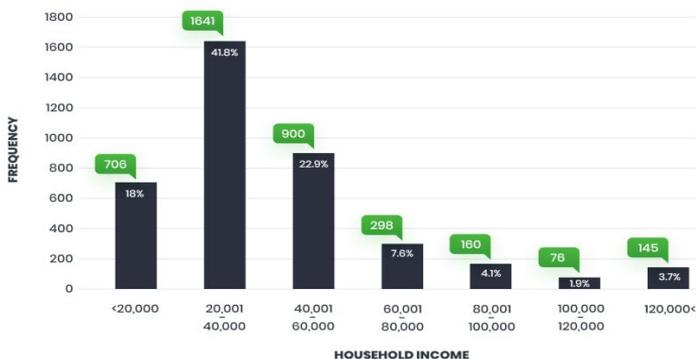
4.2.1. Household income

Income brackets in the present survey are based on the new National Minimum Wage announced by the government at the end of May 2020 (Slimani, 2020), which is equal to 20,000 DZD instead of 18,000 DZD. Figure 2 stipulates that 18% of the surveyed households have an income below the National Minimum Wage. The majority of households (64.7%) have an income between 20,001 and 60,000 DZD. Only 17.3% are above 60.001 DZD.

---

[6] March 23rd, 2020.

Figure 2. Distribution of household income

Source: elaborated by the authors based on SPSS 22 outputs

4.2.2. Percentage of income lost because of COVID-19 lockdown

It is important to point once again that the study only focuses on households who had their income negatively affected. Of the 3926 households, 56.8% lost the totality of their income, which leaves them completely exposed. 29.3% lost half of their income or more. Only 13.9% lost less than half of their income. This shows the dramatic impact the COVID-19 lockdown had on the household's income.

These findings do not support hypothesis H1, which suggested that the affected households have lost the totality of their income, and thus we reject H1. We explain this by the fact that households who did not lose 100% of their income might either: (i) have other sources of income; (ii) have a spouse that did not lose his/her income; (ii) broke the lockdown rules; and/or (iv) were not under lockdown but had lower than usual business activity due to the generalized lockdown. In addition, the findings are consistent with the recent results obtained in (Dauda et al., 2020), who also found that more than 50% of households in Nigeria had a significant decline in their income because of the COVID-19 lockdown.

Figure 3. Extent of the income shock on households' income
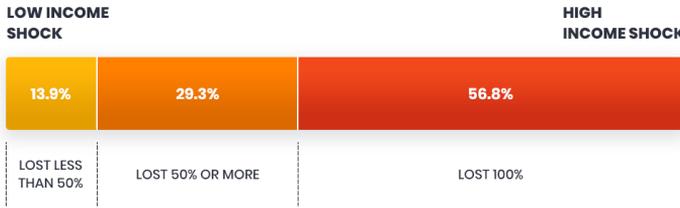
Source: elaborated by the authors based on SPSS 22 outputs

### 4.2.3. Sector of activity of the main income provider

The current variable allows us to understand how the affected households are positioned across different sectors and what the main income provider does for living. We acknowledge that these findings cannot be interpreted as a ranking of the most affected sectors.

From the pie chart below, we can see that 18.77% of the surveyed households make a living as tradespersons (*e.g.* barbers and carpenters), followed by 15.56%, who operate shops and stores that sell different types of products either on a retail or wholesale level, then comes both the food industry and land transportation professionals with 11.48% and 11.3% respectively. In the next position comes the construction works and the services companies with 9.19% and 9% respectively, followed by other sectors, as shown in Figure 4.

There is no doubt that all sectors have been affected by the lockdown. The health sector has also witnessed a decline in revenue, with 4.1% of the respondents declaring they lost all or part of their income.

Services provided by individuals such as guardians, home keepers, and porters also constitute 1% of the sample. We believe this category is under-represented, given the fact they might have lower access to the internet, and thus would not have the opportunity to participate in the survey.

Figure 4. Sector of activity of the main income provider
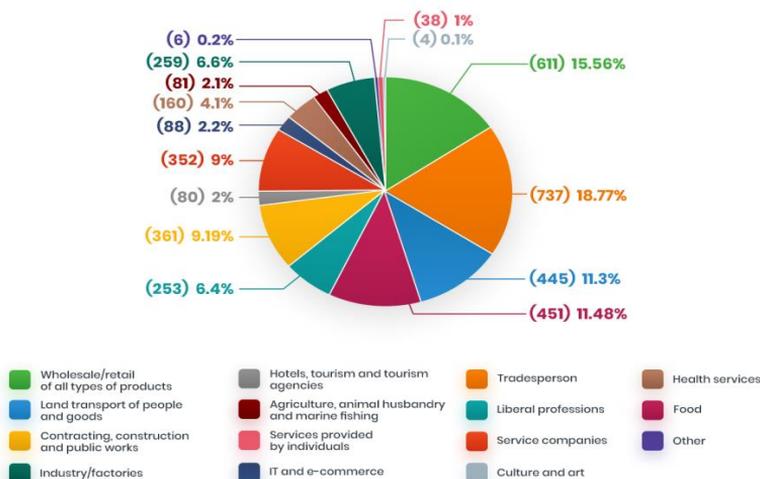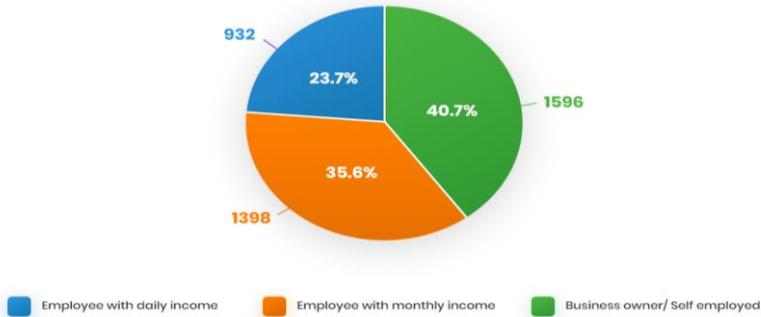

Source: elaborated by the authors based on SPSS 22 outputs

4.2.4. Professional situation of the main income provider

Now, let us focus on the professional situation of the main income provider for each household within their respective sectors. Income loss has different implications depending on the professional situation; while employees with a daily income are the most vulnerable, business owners and possibly self-employed do have higher responsibilities, where in many cases, other households depend on them.

It is apparent from Figure 5 that 40.7% of households whose income was affected are business owners or self-employed. Besides, 35.6% stated they were employed with a monthly salary. Finally, 23.7% were employed but perceived a daily remuneration.

Figure 5. Professional situation of the main income provider

Source: elaborated by the authors based on SPSS 22 outputs

4.3- Financial preparedness

Financially prepared households have three characteristics in common. They: (i) stay away from debt; (ii) have an emergency fund; and (iii) regularly contribute to social security.

4.3.1. Relationship with debt

The first characteristic of financially prepared households consists of their relationship with debt. While there is an endless debate regarding "good debt" and "bad debt", there is no doubt that all sorts of debt hinder households' ability to absorb negative income shocks and thus reduce its financial resilience.

Households were asked if they had debt just before the beginning of the lockdown. It can be seen from Figure 6 that only 28.3% of the surveyed households did not hold any kind of debt. On the other hand, 57.5% admitted they had debt from friends and family. 9.1% had debt from financial institutions. Finally, 5.1% confessed they had debt from their current employer.

The total number of households who have debt (71.7%) also indicates that they entered the COVID-19 lockdown from day zero with their hands tied. Losing part or all of their income would leave

them completely unable to pay back their debt. Households detaining debt were caught entirely off-guard.

COVID-19 lockdown will have profound social and economic consequences on both borrowers and lenders. While the social impact and the stress on human relationships remain difficult to assess, the economic impact will sooner or later be revealed, especially if the lockdown is extended for longer periods.

**Figure 6.** Nature of debt held by households (if any)
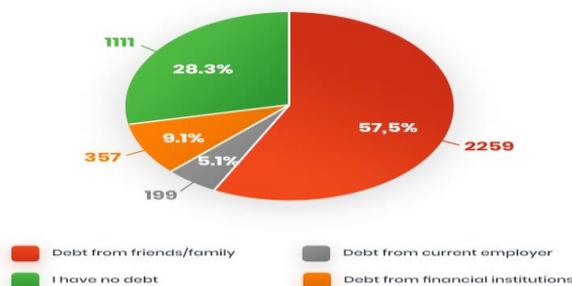
Source: elaborated by the authors based on SPSS 22 outputs

4.3.2. Detention of an emergency fund

The second characteristic of financially prepared households is the fact of having an emergency fund that can cover at least three months of living expenses. Figure 7 reveals that only 17.6% of households have an emergency fund, while 82.4% do not. We can explain these findings by the fact that households gain a relatively low income, which is already insufficient to cover living expenses, especially with the inflationary trend the country has witnessed in the past years. Also, households who are in debt tend to redirect any income excess towards paying debt, and thus their emergency fund could not be funded.

**Figure 7.** Proportion of households detaining an emergency fund
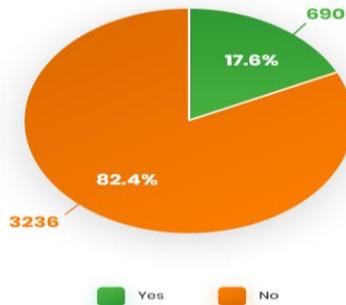
Source: elaborated by the authors based on SPSS 22 outputs

4.3.3. Enrolment in social security

The third characteristic of financially prepared households is the fact of being regularly affiliated with social security. From Figure 8, we note that only 45.3% of the surveyed households pay their social security contributions regularly. 30.2% are not contributing to social security regularly; whereas, 24.5% or about one in four households has never contributed to social security.

Social security is of particular importance in the current situation. Besides the fact that it guarantees an income at the age of retirement, it allows households to benefit from public health services.

**Figure 8.** Enrolment in social security
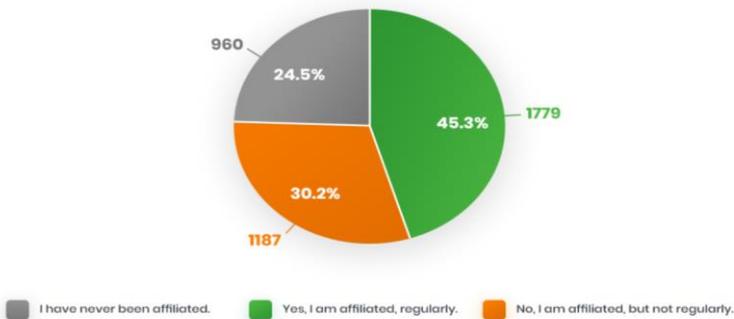
Source: elaborated by the authors based on SPSS 22 outputs

4.3.4. Aggregation of the three characteristics

If we take the three previous characteristics together, we can determine which households were prepared and which were not. We have categorized households into three groups: (i) those that satisfy all three criteria; (ii) those that do not satisfy any of the three criteria; and (iii) those that satisfy at least one criterion but not all three.

Figure 9 reports that 37.5% of the surveyed households were completely unprepared; they are in debt, do not have an emergency fund, and are not enrolled in any social security program. We believe this is the most endangered category. In order to survive, this category will inevitably go into more debt or at least dig into less liquid assets of its own. 56.3% of the surveyed households lack one or more criteria. They will also be significantly affected in various degrees and will be under pressure with each additional day into the lockdown. Finally, only 6.2% are financially prepared in all aspects. Even if they lose 100% of their income, they still can cover their living expenses without bringing significant change to their level of living.

Figure 9. Degree of financial preparedness
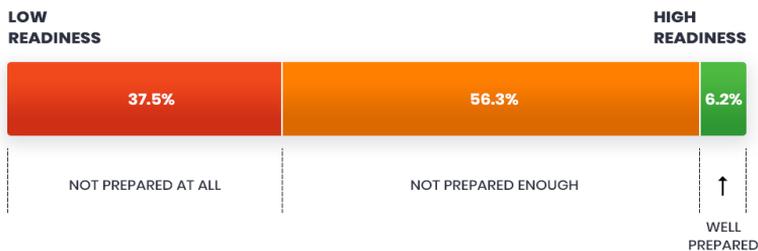
Source: elaborated by the authors based on SPSS 22 outputs

These findings support the central hypothesis of the study, which posits that Algerian households were not prepared for such an income loss. Our results are in complete agreement with (Loke, 2017; Johnson and Widdows, 1985; Huston and Chang, 1997), who continuously documented a significant lack of financial preparedness across households in multiple countries.

4.4- Financial response

The section aims to understand how Algerian households who have lost part or their entire income plan to respond to the current crisis, and how long they can survive on their own means.

4.4.1. Survival period in case of income loss

Respondents were asked a more straightforward question concerning their ability to cover regular living expenses with their income being affected by the COVID-19 lockdown. In this particular situation, the size of the emergency fund plays a vital role and helps to determine how long households can resist.

This question is particularly important as it gives policymakers an insight about how long households can stay under lockdown and what is at stake, in order to keep a reasonable balance between preserving public health and not bringing irreparable damage to households' finances.

In order to highlight how long households can resist, the results will be presented in terms of reverse cumulative frequency. At the time the survey was conducted[7], we were about 60 days into the lockdown.

Figure 10. Survival period in case of income loss
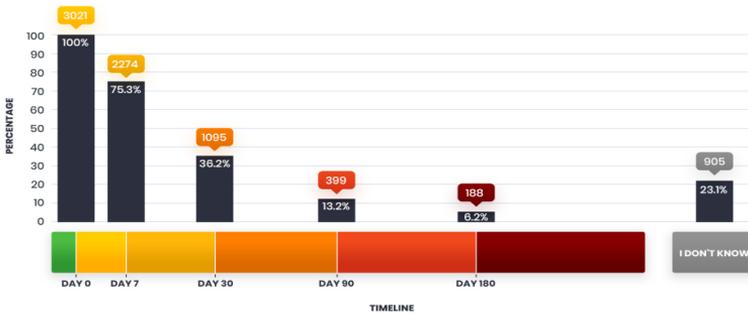
Source: elaborated by the authors based on SPSS 22 outputs

About one in four households (23.1%) does not precisely know how long they can resist. It could have passed quietly if it was related

---

[7] May 20th-May 24th, 2020.

to another topic. Nevertheless, the fact of not being able to know where the household is standing and how long it can resist is another sign of lack of financial preparedness.

Figure 10 visualizes how households surrender each day into the lockdown. At the beginning of the lockdown or day zero, we started with 3021 households[8] constituting 100%. Seven days into the lockdown, already 24.7% of households were unable to survive on their means, with 75.3% of households able to resist. On day thirty, another 39.1% of households are out of cash and cannot live on their means, which means that only 36.2% of households are still holding. Ninety days into the lockdown, another 23% of households are out, meaning that only 13.2% were able to resist so far. After one hundred and eighty days, only 6.2% of households were able to go through.

These results have further strengthened hypothesis H2, which stipulates that most households cannot survive on their means for more than one month. Moreover, it shares some similarities with (Cherabi, 2018) who also found that one out of two Algerians at the age of retirement could not survive on their means for more than one month in case of income loss.

4.4.2. Expenditure shock

In an attempt to further test the financial preparedness of the surveyed households, respondents were asked if they could cover an unexpected expense equal to their monthly income without borrowing money or asking for help. Such an expense could be related to COVID-19 medical situations or simply to other life events. Figure 11 reveals that around seven out of ten households will not be able to cover such an expense on their own.

---

[8] The 905 households that stated they "did not know" were excluded from the calculus.

Figure 11. Ability to face unexpected expenses
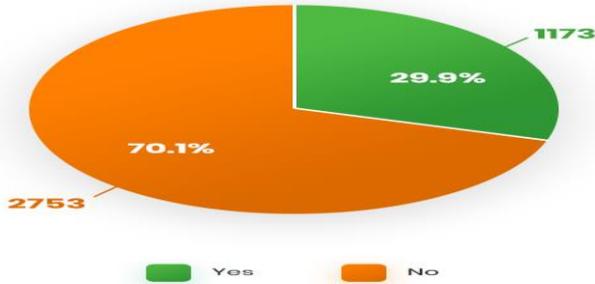
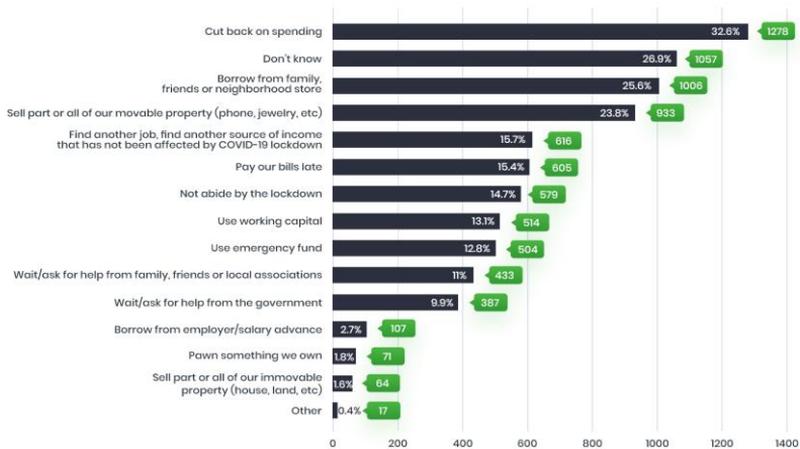*Source: elaborated by the authors based on SPSS 22 outputs*

4.4.3. Plan to cover expenses during the lockdown

This question gives a direct insight into how households plan to cover their living expenses during the lockdown. Respondents are provided with multiple options and can make more than one choice. This means the total percentage would not be equal to 100%.

The typical plan for a financially prepared household consists of cutting unnecessary spending first and then using the emergency fund. Figure 12 reveals clear trends, where the average household in the sample would also start by cutting spending first but would quickly shift to (i) borrowing from family, friends or the neighborhood store; (ii) selling things they own; and/or (iii) asking/waiting for external help. Another conspicuous result to emerge from the data is that 26.9% of households admitted they are not sure what to do next, pointing once again to a significant lack of financial preparedness.

Figure 12. Plan to cover expenses during COVID-19 lockdown

Source: elaborated by the authors based on SPSS 22 outputs

Surprisingly, hypothesis H3 stipulating that most households would go into debt in order to cover their living expenses is rejected, as only one in four households admitted they would borrow money. The current finding does not support existing research. Contrary to what was previously thought in developed countries, far less households in Algeria had turned, so far, towards borrowing money in order to cover their living expenses when their resources became insufficient. This could be explained by the fact that households also have other alternatives to borrowing, such as selling items they own, asking for/receiving external help, or like in many cases, not abiding by the lockdown. The remaining alternatives that could also explain these findings are presented in Figure 12.

CONCLUSION

The income shock caused by COVID-19 lockdown is another instance to restate the importance of financial preparedness and financial literacy. Throughout the current study, we have mainly assessed the financial preparedness of Algerian households who lost all or part of their income.

We have confirmed the central hypothesis of the study and concluded that 93.8% of Algerian households were financially ill-prepared for an income shock. Moreover, we have reached conclusions regarding the remaining hypotheses of the study:

- Only 56.8% of the affected households have lost the totality of their income. Thus, we reject hypothesis H1 stipulating that all affected households have lost the totality of their income.
- 63.8% of the surveyed households could not live on their means for more than one month, leading us to confirm hypothesis H2.
- Only one in four households (25%) admitted they went into debt in order to cover their living expenses during the COVID-19 lockdown, which is far below what was expected. Thus, we reject hypothesis H3, which suggested that most households would go into debt in order to cover their living expenses.

In addition to the previous results, we have found that:

- 71.7% of households carried debt just before they lost all or part of their income.
- Only 17.6% of households had an emergency fund equal to at least three months of expenses.
- 24.5% of households have never had social security coverage.
- 70.1% of households will not be able to cover an unexpected expense equal to their monthly income.

Our work had limitations in many aspects. The most important one consists of the descriptive nature of the study. We admit that the application of an econometric model would have indeed allowed for a more in-depth exploration of the data. The other limitation is that data were collected exclusively online, and we are not able to determine with precision the implications of such a method. Despite this, we believe the findings are still transferable to the overall population of the study.

We expect the lack of financial preparedness among households to have both short and long-term implications. Households that have not prepared for an income loss, will not only suffer from social and relational tensions, but they will inevitably inherit a bad financial

situation that can take years to be fixed, and that could have probably been avoided with self-discipline and preparation.

However, without an understanding of basic financial concepts and a good level of financial literacy, households are not expected to be financially prepared for such situations. There is no doubt that personal finance and/or financial literacy in Algeria is still overlooked not only by households themselves but also by policymakers and academicians as well.

Our research suggests that households should inevitably rethink their beliefs regarding the management of their finances and build skills necessary for a solid financial situation. They should also seek to acquire personal finance knowledge by themselves in the first place. With the currently available resources through the internet, self-education has never been much achievable.

We also support the idea that policymakers should step in and promote financial literacy. Although the government has approved a financial assistance package for low-income households, we believe it is not going to fix much if households are financially illiterate, as they will simply fall back into the same kind of trouble in the future. The observations contained in this paper might be the first step towards the implementation of a national financial literacy strategy in Algeria, resulting in a much more autonomous household that would pro-actively plan for its financial future and rely less on government support.

Given the scarcity of data and contributions regarding financial preparedness and financial literacy in Algeria, it is safe to say that this study has gone some way towards enhancing our understanding of such a sensitive topic. While we are actively working on assessing the financial impact of COVID-19 lockdown on Algerian households, further research should be undertaken in an attempt to create a much more comprehensive landscape about financial literacy in Algeria, and also to provide applicable mechanisms to promote it.

References

Cherabi I, (2020). *"Dataset: national survey about Algerian households, covid-19 lockdown & personal finance"*. Available at: https://docs.google.com/spreadsheets/d/1tfhvTc7ISsWjwn1iQ12UjZ5p FQUGjjEVrEFreMJelh4/edit?usp=sharing.

Cherabi I, (2018). "Financial Literacy and Retirement Preparedness among Algerians Who Have Reached the Age of Retirement". *In Les Cahiers du MECAS. 14(1), pp. 31–41.*

Cochran W. G, (1963). *"Sampling Techniques"*. Second Edition. John Wiley and Sons. USA.

Dauda S. et al., (2020). "COVID-19 Pandemic and Financial Well-Being: Insights from Nigerian Households". *In Social Science Research Network. Scholarly Paper ID 3620096.*

Duffy B. et al., (2005). "Comparing data from online and face-to-face surveys". *In International Journal of Market Research. 47(6), pp. 615–639.*

Helgilibrary, (2020). *"Number of Households in Algeria"*. Available at: https://www.helgilibrary.com/indicators/number-of-households/algeria. (Accessed: June 3rd, 2020).

Huston S. J. and Chang Y. R, (1997). "Adequate Emergency Fund Holdings And Household Type". *In Journal of Financial Counseling and Planning. 8(1), 37-46.*

ILO, (2001). *"Facts on social security"*. Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_067588.pdf. (Accessed: June 8th, 2020).

Johnson D. P. and Widdows R, (1985). "Emergency fund levels of households". *In The Proceedings of the American Council on Consumer Interests 31th Annual Conference. p. 241.*

Kellner P, (2004). "Can online polls produce accurate findings?". *In International Journal of Market Research. World Advertising Research Center Ltd, 46(1), pp. 3–21.*

Klapper L, Lusardi A. and Van Oudheusden P, (2015)." *Financial literacy around the world: Insights from the Standard & Poor's ratings services global financial literacy survey"*. Global Financial Literacy Excellence Center, George Washington University. USA.

Loke Y. J, (2017). "Financial Vulnerability of Working Adults in Malaysia". *In Contemporary Economics. 11(2), pp. 205–219.*

Lusardi A and Mitchell O. S, (2014). "The Economic Importance of Financial Literacy: Theory and Evidence". *In Journal of Economic Literature, 52(1), pp. 5–44.*

OECD, (2020). *"Household debt (indicator)"*. Available at: http://data.oecd.org/hha/household-debt.htm. (Accessed: June 8th, 2020).

OECD, (2018). *"OECD/INFE toolkit for measuring financial literacy and financial inclusion"*. France.

OECD, (2016). *"OECD/INFE International Survey of Adult Financial Literacy Competencies"*. France.

Slimani K, (2020). "Le texte de Loi de finances complémentaire 2020 par les chiffres". *In Algérie Presse Service. Available at: http://www.aps.dz/economie/105622-le-texte-de-loi-de-finances-complementaire-2020-par-les-chiffres. (Accessed: 4 June 2020).*

United Nations, (1998). *"Principles and Recommendations for Population and Housing Censuses* Rev. 1". United Nations Publications (Statistical papers. Series M, no. 67/rev. 1). USA.

Appendix

Table 1. Households' distribution by the province of residence

Province	Frequency	%	Province	Frequency	%
Adrar	17	0.4	Constantine	391	10
Chlef	45	1.1	Medea	80	2
El Aghouat	44	1.1	Mostaghanem	32	0.8
Oum El Bouaghi	81	2.1	Msila	127	3.2
Batna	187	4.8	Mascara	46	1.2
Bejaia	79	2.0	Ouargla	42	1.1
Biskra	94	2.4	Oran	180	4.6
Bechar	18	0.5	El Bayadh	12	0.3
Blida	167	4.3	Illizi	4	0.1
Bouira	82	2.1	Bordj Bou Arreridj	99	2.5
Tamanrasset	9	0.3	Boumerdes	103	2.6
Tebessa	70	1.8	Taref	14	0.4
Tlemcen	113	2.9	Tindouf	1	0.0
Tiaret	57	1.5	Tissemssilt	13	0.3
Tizi Ouzou	83	2.1	El Oued	37	0.9
Algiers	619	15.8	Khenchla	47	1.2
Djelfa	79	2.0	Souk Ahras	26	0.7
Jijel	74	1.9	Tipaza	56	1.4
Setif	202	5.1	Mila	83	2.1
Saida	14	0.4	Ain Defla	50	1.3
Skikda	65	1.7	Naâma	12	0.3
Sidi Belabes	39	1	Ain Timouchent	35	0.9
Annaba	76	1.9	Ghardaya	46	1.2
Guelma	48	1.2	Ghelizene	26	0.7

	Frequency	%
Total	3926	100%

Source: elaborated by the authors based on SPSS 22 outputs

Survey questions

(Extracted from the dataset and translated from Arabic to English)
Q1: What is the size of your household?

Q2: What is your main province of residence?

Q3: Which of the following represents your monthly household income? **(1)** <20,000; **(2)** 20001-40000; **(3)** 40001-60000; **(4)** 60001-80000; **(5)** 80001-10000; **(6)** 100001-120000; **(7)** >120,000.

Q4: What is the percentage of income that your household lost because of the COVID-19 lockdown? **(1)** We lost 100% of our income; **(2)** We lost 50% or more; **(3)** We lost less than 50%.

Q5: What is the sector of activity of the main income provider in your household?

Q6: What is the work situation of the main income provider in your household? **(1)** Business owner/self-employed; **(2)** Employee with a monthly income; **(3)** Employee with a daily income.

Q7: If your household had debt at the beginning of the lockdown (March 23rd, 2020), what is its nature? **(1)** We have no debt; **(2)** Debt from friends/family; **(3)** Debt from current employer; **(4)** Debt from financial institution.

Q8: Do you have an emergency fund that can cover at least three months of your household expenses? **(1)** Yes; **(2)** No.

Q9: Is the main provider for your household enrolled in one of the social security organisms (CNAS, CASNOS, etc.)? **(1)** Regularly affiliated; **(2)** Affiliated, but not regularly; **(3)** Never been affiliated.

Q10: If your household lost its main source of income, how long could you continue to cover your living expenses without borrowing any money or asking for help from others? **(1)** less than a week;

(2) 1 week - 1 month; **(3)** 1-3 months; **(4)** 3-6 months; **(5)** 6 months <; **(6)** I don't know.

Q11: If your household faced a significant expense today – equivalent to your monthly income – would you be able to pay it without borrowing money or asking family or friends to help? **(1)** Yes; **(2)** No.

Q12: How does your household plan to cover its living expenses during COVID-19 lockdown? **(1)** Use our emergency fund; **(2)** We will not abide by the lockdown; **(3)** Use working capital; **(4)** Cut back on spending; **(5)** Sell part or all of our movable property (phone, jewelry, etc.); **(6)** Find another source of income that has not been affected by COVID-19 lockdown; **(7)** Wait/ask for help from the government; **(8)** Wait/ask for help from family, friends, and local associations; **(9)** Borrow from family, friends or neighborhood store; **(10)** Borrow from employer/salary advance; **(11)** Pawn something we own; **(12)** Sell part or all of our immovable property (house, land, etc.); **(13)** Pay our bills late; **(14)** Do not know; **(15)** Other: