The Covid-19 pandemic and entrepreneurship: some reflections

Francisco Liñán

University of Seville, flinan@us.es

Anglia Ruskin University, francisco.linan@anglia.ac.uk

Inmaculada Jaén

University of Seville, inmajaen@us.es

# Abstract

Purpose: The Covid-19 pandemic has affected the world in an unprecedented manner. The economic recession in 2020 is expected to be the most serious since World War II. The present article analyses the likely consequences of the Covid-19 pandemic crisis on entrepreneurship and new venture activity with a particular focus on emerging economies.

Design/methodology/approach: The paper focuses first on the major shocks caused by the pandemic that may affect entrepreneurial activity. To do so, we briefly review the literature about the previous financial crisis and its effects on entrepreneurship. Then, the manuscript means to disentangle how these shocks will impinge on the different stages and motives within the entrepreneurial process.

Findings: Our analysis reveals that the consequences of the pandemic for entrepreneurship will be generally damaging, but they may not be so tremendously negative as originally thought. We could initially expect a broad downturn in entrepreneurial activity. Soon after that, however, necessity entrepreneurship is likely to boom. At the same time, but to a lesser extent, highpotential entrepreneurial activity could also be fostered, provided the recovery is quick and there is sufficient support from the environment and institutions.

Originality/value: This is probably one of the first academic reflections on the likely effects of the Covid-19 pandemic on entrepreneurship. It specifically addresses the role of institutions and how they may differently affect necessity and opportunity entrepreneurship. It also suggests interesting, related research areas and some basic recommendations on how to help entrepreneurs overcome it.

Keywords:

Covid-19; pandemic; crisis; shock; entrepreneurship; potential entrepreneurs; necessity entrepreneurship; opportunity entrepreneurship; high-quality entrepreneurship

Acknowledgements:

This study has been supported by the *ELITE project (http://grupo.us.es/pymed/en/elite/)*, funded by the Spanish National R&D Plan, Ministry of Economics and Competitiveness (Ref.: ECO201675655-P).

# Introduction

2020 will be remembered for the Covid-19 pandemic. The spread of the virus has been so quick and disrupting, and the consequences so terrible, that it overshadows any other event. It is propagating to more and more countries, including developed, developing and emerging ones. The economic consequences are being equally serious. Initial forecasts assume this to be the most severe economic crisis since World War II, substantially deeper than the recent 2008-2012 financial crisis. And the effects on entrepreneurship and start-up activity threaten to be even worse. Although the situation is unprecedented, we can learn from the previous crisis and the existing research to identify some of the consequences in general, and more specifically for entrepreneurial activity.

One could expect the negative effects on the economic situation to produce a growing fear by entrepreneurs that the new venture project may fail due to reduced market demand, more difficult access to resources (notably funding), or administrative measures to guarantee social distancing. In this sense, there is a broad literature base showing that potential, nascent and new entrepreneurs could be easily scared. In particular, fear of failure has been identified as a significant barrier to trying out an entrepreneurial career (Bosma et al., 2008; Li, 2011; Morgan and Sisak, 2016). Recent research has shown that being confronted with obstacles in the nascent stage leads to fear-of-failure activation, which in turn makes the entrepreneur more likely to abandon the start-up project (Kollman et al., 2017).

Under this perspective, therefore, one should expect a dramatic fall in the number of entrepreneurial projects being undertaken. The crisis will pose additional barriers to entrepreneurs. Recent news in the press suggests that start-ups are already being hit by the Covid-19 economic disaster (Griffith, 2020). The previous financial crisis had a substantial effect on the entrepreneurial activity in the developed countries (which were those most affected), but also in emerging economies (GEM, 2019). Lerner (2010) reports a substantial fall in venture-capital investments during the initial stages of the 2008 crisis. Therefore, the possibility exists that we will again see a similar trend caused by the pandemic. However, given that the expected economic consequences are more severe, and more concentrated in a shorter time period, the drop in entrepreneurial initiatives could be even larger. And we can assume that it will affect all countries, irrespective of their development level. The extent of this fall will depend, among other things, on the resilience and ability to adapt of existing start-ups and new ventures. Dahles and Susilowati (2015), for an emerging economy, show that several of these businesses can be remarkably resilient to external shocks.

In this paper, we try to review some of the major consequences and mechanisms through which the Covid-19 crisis may affect entrepreneurship, and the different effects we can expect on each stage and type of entrepreneurs. We also point to some of the research areas that may lie ahead after this situation. Finally, we propose one or two recommendations that may be useful in supporting entrepreneurship in this situation.

# Major shocks affecting entrepreneurship

It may be daring to identify at this early stage what specific shocks the Covid-19 crisis will produce for entrepreneurship. Nevertheless, some of the more obvious and probably more important ones can be grouped into either a demand-side (less customers willing to buy products or services) or a supply-side (increased difficulty and/or cost in accessing the necessary resources –e.g., funding- and using them for production) perspectives. Additionally, there may be a shift in the main areas or sources of opportunities.

Regarding the demand-side effects, they basically concentrate in a decrease in aggregate demand (total spending). This will likely have at least three different causes. In the first place, the way out of the pandemic will not take us to where we were before. Things will be different for a long time. There will be several restrictions to common activities that will affect our choice options as consumers. Or they may simply be not allowed. Governments are explaining to their citizenship that we have to get ready for a “new normality”. Travelling will be limited, or made more difficult. Large concentrations of people will be prohibited. With respect to entrepreneurship, the scalability of projects usually depends on rapidly reaching a large customer base. However, achieving this through face-to-face contact may become substantially more difficult.

Secondly, the general economic effects of the crisis are already having a tremendous impact on normal consumer activity. With all shops, bars, restaurants or hotels closed for several weeks, and the prospects of partial and restricted openings for a long period after the lockdown, the GDP will fall, and so will employment. The International Monetary Fund’s early projections (IMF, 2020) estimate a 6.1% fall in GDP for the developed economies in 2020, and a 1.0% drop for the emerging market and developing economies. The unemployment rate is expected to grow by 25%-50% in most advanced economies. Thus, for the Euro Area countries, it is expected to reach

9.2%, a 39% increase on the 6.6% figure for 2019. The prospects for the USA are even worse (from 3.7% in 2019 to 10.4% expected in 2020, a 181% growth). More recent forecasts by national governments are, however, substantially worsening the prospects. The softer expected recession in emerging economies is based on the smaller impact (so far) of the Covid-19 in these countries. Notwithstanding, inasmuch as the virus expands through these countries and prevalence rates grow, the forecasts for them will be substantially worsened.

All this will have a negative multiplying effect on consumer demand. We are to expect reduced income in households, with the consequence of lower aggregate demand by consumers. This is expected to last for several quarters, and maybe years, after the “new normality” is reached. In this context, the sales prospects for start-ups offering new products or services are certainly difficult.

Thirdly, there is likely to be a change in people’s perceptions, with increased apprehension and fear. Thus, we could expect consumers to become more cautious in general. It would be reasonable to anticipate an increase in the marginal propensity to save. This is a typical behaviour in times of uncertainty based on precautionary savings models. According to them, the saving rate climbs (consumption falls) in response to an increase in uncertainty (Carroll et al., 2012; Estrada-García et al., 2014). This will imply an additional reduction in consumption spending, exacerbating the second effect mentioned above.

On the other hand, if we look at the supply side, we can also expect a number of negative effects. The first of them relates to funding. As already noted (Griffith, 2020), business angels and venture capital firms are paralysing their investment in new ventures and, in turn, concentrating on their present portfolio of already invested companies. This is in line with Lerner’s (2010) account of the effect of the 2008 crisis on venture capitals. Many of the invested start-ups are facing serious trouble and may need additional funds. Venture capitalists will likely prefer to try and save these firms (and the money they have already invested) rather than investing in new ones and increase their risk exposure. In this sense, Klapper and Love (2011) show that the decline in firm registration during the 2008 global crisis was more pronounced in countries where the financial crisis was more severe. In turn, in emerging economies the impact could be slightly less serious, since their financial markets and venture capital investments are not so developed.

A second supply problem, again, may have to do with the restrictions to normal activity set by health and/or government authorities. These will entail additional costs for any activity (personal protective equipment, personal preparation, increased cleaning). These costs could be relatively small for (large) established companies. In contrast, they are substantially more important in the case of new ventures and start-ups, since these are smaller and so are their sales. In this way, profitability will be more difficult to achieve.

A third restriction on the supply side would be related to the problem of securing supplies. To the extent that travelling is limited or more difficult, and other restrictions apply to several activities, it may be difficult to secure supplies for some necessary production inputs. Again, this is likely to cause a rise in operating costs, and may even hamper the viability of the new venture.

Finally, the present Covid-19 crisis may also become a source of new opportunities, which could be considered, at least partially, as a positive side of the crisis. In the first place, there is obviously a major area of opportunities in everything related to health materials and protective equipment. Similarly, biochemical and biomedicine is another obvious area of opportunity since the demand for new tests, treatments or vaccines for this virus and for potential new viruses will be high.

Additionally, there is also an indirect positive effect on new businesses that may become potentially profitable due to the changes caused by the pandemic and the reactions to it. This is the case of several industries, such as online services, e-commerce, remote working, distance learning and education, software solutions for firms or third-age care services, among others. Both established businesses and start-ups in these industries have seen their demand substantially increased. This paves the way for newcomers to try and enter these markets with improved or totally new goods or services.

# Effects on entrepreneurship dynamics

A second set of effects relate to the changes caused by the pandemic on entrepreneurship dynamics. In this sense, since our focus is on entrepreneurial activity, we will concentrate on two groups of the population. On the one hand, we have potential entrepreneurs considering the possibility to start up. For them, the effects may run in both directions. Overall, though, one could expect an increase in intentional entrepreneurs, at least in the medium term. Meanwhile, on the other hand, we also have nascent and new entrepreneurs already developing their projects. For this second group, again, some mixed contradictory effects may be expected.

Not all (potential, nascent or new) entrepreneurs declare similar motives to start their ventures up. Traditionally, the most common classification separates necessity from opportunity as the main motives (Reynolds, 2012). There is considerable debate on the real differences between entrepreneurs with one motive or the other (Williams, 2009). Reynolds (2011) find they are more alike than not. Nevertheless, there great majority of the research considers the difference to be relevant and worthy of investigation (McMullen, Bagby and Palich, 2008; Block and Sandner, 2009; Amorós et al., 2019). Thus, even if we acknowledge the difference is not so clear-cut as some may argue, we will adopt it as a reference in this manuscript.

In the case of potential entrepreneurs, the necessity motive may push more individuals into this category (Santos et al., 2017). The increase in unemployment and a lack of alternative options will force many people to consider the possibility of starting a new venture. In this sense, the previous crisis has shown both an increase in the percentage of adults planning to start a venture and, simultaneously, a rise in the percentage of necessity-motivated nascent and new entrepreneurs.

Arrighetti et al. (2016) confirm these effects on a sample of Italian potential entrepreneurs.

Conversely, we can also expect some changes coming from opportunity-motivated individuals, related to the conception of risk (Nabi and Liñán, 2013). First, to the extent that risk is perceived as a threat, individuals will face a higher perceived risk and lower expected returns from starting a venture to exploit an opportunity. This will be a strong disincentive for the intention to start up Arrighetti et al, 2016). Alternatively, individuals who see risk as an opportunity (Nabi and Liñán, 2013) will be prepared to identify and willing to exploit high-quality opportunities caused by the above-mentioned shocks (Giotopoulos et al, 2017; Devece et al., 2016). But this effect will likely be smaller than is the case for necessity-motivated potential entrepreneurs, at least initially.

*Figure 1. Entrepreneurial intentions during the global crisis (selected countries)*

20

25

30

35

40

45

50

55

4

6

8

10

12

14

16

2014

2009

2008

2010

2011

2012

2013

South Africa

Spain

UnitedStates

Chile(right‐hand axis)

Brazil (right‐hand axis)

Source: GEM (2019)

Actual data on potential entrepreneurs from the Global Entrepreneurship Monitor (GEM, 2019) clearly show this trend (see Figure 1). As may be seen, intentions dropped (only slightly in the U.S.A.) during the first year (with the exception of Chile). In contrast, we can see a substantial increase in subsequent years (until 2010 in South-Africa, 2011 in Chile or 2012 in USA, Spain and Brazil). In the present Covid-19 crisis, we could therefore expect to have an initial decrease in potential entrepreneurs during 2020, but we will likely see an increase in the upcoming years. A higher share of them will likely be motivated by a lack of alternatives (as shown by the drop in intention levels after the worst of the crisis is over, see Figure 1).

In the case of nascent and new entrepreneurs, they are already committed to their venture and have invested time, work, effort and resources in the initial stages of their project. For them, the crisis is like a curse which has fallen upon their project/venture, and to which they have to react. In this situation, Davidsson and Gordon (2016) identify four possible types of responses: disengagement, delay, compensation and adaptation. In the initial stages of the project, when the resources invested in the new firm are relatively small, disengagement (abandonment of the project) and delay (postponement and reduced rhythm in the subsequent creation activities) are the most likely options. In this sense, we should see an initial drop in actual entrepreneurial activity.

Yet, when the projects are more developed, the founders are highly committed and the amount of resources invested are higher, we could expect a different reaction. The nascent/new entrepreneur could respond by compensating the downturn with increased effort and resources, leading to a faster development of the firm. Alternatively, they may also reply by adaptation. That is, they would react to this new crisis by pivoting and re-orienting their project towards more promising opportunities. For instance, several small and/or new firms (e.g., breweries, distilleries) quickly pivoted and started producing hand sanitizer as an additional revenue stream by creating an unrelated product line extension since they had the materials to do so.

Overall, then, we can expect to see an increase in necessity motives, both for potential and for nascent/new entrepreneurs (Arrighetti et al., 2016; Santos et al., 2017). In the case of opportunity and/or ambitious entrepreneurial projects and opportunities, we can anticipate smaller numbers but higher quality (Giotopoulos et al., 2017). Therefore, a higher share of the new ventures will be started by necessity-motivated individuals and will most probably exhibit low development prospects and potential (Devece et al., 2016).

Figure 2 presents the breakdown of actual early-stage entrepreneurial activity by motives in some countries. As may be seen, a very clear pattern emerges for the developed country (USA). The TEA dropped in 2009 and in 2010. This was caused by a lower fraction of opportunity-motivated entrepreneurs, despite the increase in those who were motivated by necessity. This rise in the necessity motivation has been generally maintained for several years. In the longer term, though, as prospects become brighter, we could see an increase in opportunity-motivated entrepreneurial activity. In this respect, then, this represents a promising way out of the crisis, provided these new ambitious projects are able to survive and grow despite the critical economic situation.

Nevertheless, the most important threat for these future high-quality projects to materialise is the lack of available funding (Lerner, 2010; Klapper and Love, 2011).

*Figure 2. Total Entrepreneurial Activity (TEA) by motive during the global crisis (selected countries)*



Source: GEM (2019)

However, this pattern is not so clear for the emerging countries. Figure 2 does present an increase in the necessity motive of entrepreneurs for South Africa, Chile and Brazil in the early years after the crisis. But we can also see that this change is not always accompanied by a drop in opportunity entrepreneurship. This leads us to consider the institutional context in entrepreneurship. There have been a number of studies analysing the role of context in entrepreneurial activity and the differential effect it may have on necessity and opportunity-motivated entrepreneurial efforts (McMullen, Bagby and Palich, 2008; Amorós et al., 2019).

McMullen et al. (2008) studied ten factors related to economic freedom and how they affected both necessity and opportunity entrepreneurship across 37 different countries. The majority of the countries were developed, but some emerging and developing ones were included. They found that there were differences in the specific “freedoms” contributing to each type of entrepreneurship. More recently, Amorós et al. (2019) built on these results to analyse what they called “state fragility” and how it affects differently motivated entrepreneurial activity. They found that state fragility has a positive effect on necessity-based entrepreneurship, while it hinders opportunity-based efforts. In this respect, Reynolds (2012) found that necessity entrepreneurship is more prevalent in emerging economies.

There is a need, therefore, to recognize the importance of the institutional framework. In morefragile states, institutions often fail to sanction detrimental behaviour because of corruption, lack of accountability, a malfunctioning legal system, and the state’s overall failure to provide the public goods needed for society and the economy to work (Amorós et al., 2019). In this context, the need for better working institutions to be able to successfully develop opportunity-based initiatives has been highlighted (Baumol, 1990). In turn, necessity-based entrepreneurship is positively associated to state fragility. Higher fragility will likely lead to a less favourable environment for business activity. Thus, firms will be smaller and generate less employment, while there will likely be scarce control on the labour conditions. There will then be a higher need to start a venture due to lack of alternative options (necessity entrepreneurship). Additionally, one very common way avoid regulative barriers and rigidity will be through starting up as an informal venture (Dau and Cuervo-Cazurra, 2014; Thai and Turkina, 2014).

# Research areas

Based on the reflections above, there are a number of relevant and urgent research areas in which academics could (and should, we dare say) investigate. In the first place, the effect of the Covid19 crisis on entrepreneurship-related perceptions deserves attention. The Global Entrepreneurship Monitor (GEM), despite all possible criticisms (Hindle, 2006; Baumol et al., 2007; Marcotte, 2013), measures several of these perceptions (Reynolds, 2012), such as the existence of good opportunities to start-up, the fear of failure as a personal barrier or the belief in possessing the necessary knowledge and skills.

Relatedly, the effect on the entrepreneurial intention is also to be investigated. In particular, given the widespread use of entrepreneurial intentions and their central role in entrepreneurship research (Liñán and Fayolle, 2015), the conditions under which the net impact of the Covid-19 on entrepreneurial intentions is positive (encouraging) or negative (discouraging) should deserve special attention. This may include the analysis of the influence on the different motivational antecedents conforming the intention.

Similarly, the specific moderators affecting (accelerating or holding up) actual behaviour from intentions would be of interest. In this respect, the institutional context (including state fragility and economic freedom) are surely relevant (McMullen et al., 2008; Amorós et al., 2019). In particular, it may affect the share of new ventures that is created in the shadow or informal economy (Williams, 2009). Related to this, the role of social entrepreneurship is also relevant, since it is by definition focused on the solution of social problems. In the case of emerging economies, social entrepreneurship is an area receiving increasing attention (Sengupta, Sahay and Croce, 2018). Its role and contribution during the covid pandemic should be of special interest.

Another possible avenue for further research lies in the identification of the successful (or the unsuccessful) strategies pursued by nascent and new entrepreneurs in adapting their projects. Or the extent to which compensation and adaptation strategies have been able to save the new venture (Davidsson and Gordon, 2016). In this sense, one would expect effectuation approaches (Sarasvathy, 2001) to be especially apt to react to this unforeseen (and almost unforeseeable) situation. Notwithstanding, research should be carried out to let us know whether this expectation is met, and how specific effectuation strategies help overcome this crisis. In particular, the case of high-quality or high-potential opportunity-driven projects deserves special attention. Some authors even consider there is a downward long-term trend in opportunity entrepreneurship (Konczal and Steinbaum, 2016) which, if confirmed, would become a serious problem.

Some contradictory findings also deserve further attention. Research has found existing SMEs to be very resilient to external shocks and crises, with very high survival rates (Dahles and Susilowenti, 2015). In turn, data on the registration of limited liability firms shows a clear decline during the previous crisis (Klapper and Love, 2011). There may be several explanations for this difference. The definition of firm (any formal or informal venture vs. registered limited liability companies) may be one of them. Alternatively, the sector of activity or the distinction between consolidated vs. new firms may also explain this contrasting results. Finally, the wider economic and institutional conditions may also be important, since Dhales and Susilowenti (2015) analysed the case of an emerging country, whereas Klapper and Love (2011) focused on developed economies. The answer to this contradiction will be relevant in understanding how and when some companies are better fit to survive and thrive facing a crisis. In this sense, there is some evidence of declining levels of entrepreneurial activity in a number of countries (e.g., Decker et al., 2016). It should be interesting to investigate whether the covid crisis exacerbates this trend or serves to compensate it.

# Recommendations

Based on the analysis above, it is obvious that the pandemic will have a substantial effect on entrepreneurial activity. Therefore, several measures could be taken to help potential, nascent and new entrepreneurs survive (Giotopoulos et al, 2017). This may include simplification of the administrative process for starting up, measures to facilitate the use of unemployment benefits in new venture projects, the conservation of social and welfare benefits if the person launches a new firm, etc. However, one has to be aware that these measures will contribute to the emergence of mainly necessity-driven entrepreneurs. So, the overall effect on GDP and employment will likely be very limited. In the case of emerging countries, and depending on the level of economic freedom (McMullen et al., 2008) and state fragility (Amorós et al., 2019), it may result in a substantial rise in the creation of informal ventures.

Additionally, none of these measures will be easy to implement, and especially so with the speed that they should be put into effect if they are to be really effective. This difficulty arises mainly from the usual delay in passing new legislation. And this is aggravated by the lack of funding to help start-ups and new ventures. In the case of public funding, budget constraints will be enormous. Besides, there is a strong demand for relief measures from established businesses and also from households. In the case of private funds (as mentioned above), there will be a reluctance to invest given the high-risk perception and a preference to concentrate on already-invested companies.

However, central banks and national governments seem to have learned the lessons from the previous global financial crisis. In this sense, several of them have already announced a number of measures to prevent liquidity problems in the economy and the subsequent credit crunch. If this policy strategy is maintained, we can still hope for a relatively quick recovery from the Covid19 crisis. On the other hand, though, the long-term consequences in terms of public deficits, public and private debt, and increased money supply will surely be important as well. Emerging and developing countries may face stronger financial pressure if they already exhibit very high public and/or external debt levels.

Yet, there is one specific area in which we cannot overstate the importance of providing support for start-ups. We are referring to high-quality or high-potential entrepreneurship (alternatively termed as ambitious, innovative, exporting or high-growth new ventures). Emergency measures should be taken as soon as possible to support these projects and start-ups. To do so, help could be addressed to already existing accelerators, technology incubators, etc., to maximise speed and efficiency. Nonetheless, there is also a possible drawback here as well. New start-up activity is likely to concentrate on already-existing entrepreneurial hubs/ecosystems, thus contributing to an increased polarisation of the economic activity.

# References

Amorós, J. E., Ciravegna, L., Mandakovic, V. and Stenholm, P. (2019), “Necessity or opportunity? the effects of State fragility and economic development on entrepreneurial efforts”, *Entrepreneurship Theory and Practice*, Vol. 43 No. 4, pp.725-750.

Arrighetti, A., Caricati, L., Landini, F. and Monacelli, N. (2016), “Entrepreneurial intention in the time of crisis: a field study”, *International Journal of Entrepreneurial Behaviour & Research*, Vol. 22 No. 6, pp.835-859.

Baumol, W. J. (1990), “Entrepreneurship: Productive, unproductive, and destructive”, *Journal of Political Economy*, Vol. 98 No. 5, pp.893–921.

Baumol, W.J., Litan, R.E. and Schramm, C.J. (2007), *Good capitalism, bad capitalism, and the economics of growth and prosperity*. Yale University Press.

Block, J. and Sandner, P. (2009), “Necessity and opportunity entrepreneurs and their duration in self-employment: evidence from German micro data”, *Journal of Industry, Competition and Trade*, Vol. 9 No. 2, pp.117-137.

Bosma, N., Jones, K., Autio, E. and Levie, J. (2008), *Global entrepreneurship monitor, executive report 2007.* Babson College & London Business School. Babson Park, MA. & London, UK.

Carroll, C., Slacalek, J. and Sommer, M. (2012), “Dissecting Saving Dynamics: Measuring Credit, Wealth and Precautionary Effects,” *Working Paper 219*, International Monetary Fund.

Dahles, H. and Susilowati, T.P. (2015), Business resilience in times of growth and crisis. *Annals of Tourism Research*, Vol. 51, pp.34-50.

Dau, L. A. and Cuervo-Cazurra, A. (2014), “To formalize or not to formalize: Entrepreneurship and premarket institutions”, *Journal of Business Venturing,* Vol. 29 No.5, pp.668–686.

Davidsson, P. and Gordon, S.R. (2016), Much ado about nothing? The surprising persistence of nascent entrepreneurs through macroeconomic crisis. *Entrepreneurship Theory and Practice*, Vol. 40 No. 4, pp.915-941.

Decker, R. A., Haltiwanger, J., Jarmin, R.S. and Miranda, J. (2016), "Declining Business Dynamism: What We Know and the Way Forward", *American Economic Review*, Vol. 106 No. 5, pp.203207.

Devece, C., Peris-Ortiz, M. and Rueda-Armengot, C. (2016), Entrepreneurship during economic crisis: Success factors and paths to failure. *Journal of Business Research*, Vol. 69 No. 11, pp.5366-5370.

Estrada-García, A., Garrote-Sánchez, D., Valdeolivas-Casillas, E. and Vallés Liberal, J.J. (2014),

 Household debt and uncertainty: private consumption after the Great

Recession. *Documentos de trabajo/Banco de España, 1415*.

GEM (2019): Adult Population Survey dataset. Global Entrepreneurship Research Association, London Business School, London (UK). https://www.gemconsortium.org/data (last accessed April 30th, 2020),

Giotopoulos, I., Kontolaimou, A. and Tsakanikas, A. (2017), Drivers of high-quality entrepreneurship: what changes did the crisis bring about? *Small Business Economics*, Vol. 48 No. 4, pp.913-930.

Griffith, E. (2020), Start-Ups Are Pummeled in the ʻGreat Unwindingʼ. *The New York Times* (April 1st). https://www.nytimes.com/2020/04/01/technology/virus-start-ups-pummeled-layoffsunwinding.html

Hindle, K. (2006), A measurement framework for international entrepreneurship policy research: From impossible index to malleable matrix. *International Journal of Entrepreneurship and Small Business*, Vol. 3 No. 2, pp.139-182.

IMF (2020): *World Economic Outlook*. International Monetary Fund. Washington, DC.

https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020 (last accessed April 30th, 2020).

Klapper, L. and Love, I. (2011), The impact of the financial crisis on new firm registration. *Economics Letters*, Vol. 113 No. 1, pp.1-4.

Kollmann, T., Stöckmann, C. and Kensbock, J.M. (2017), Fear of failure as a mediator of the relationship between obstacles and nascent entrepreneurial activity—An experimental approach. *Journal of Business Venturing*, Vol. 32 No. 3, pp.280-301.

Konczal, M. and Steinbaum, M. (2016), *Declining Entrepreneurship, Labor Mobility, and Business Dynamism: A Demand-Side Approach*. New York: Roosevelt Institute. http://rooseveltinstitute. org/declining-entrepreneurship-labor-mobility-and-business-dynamism.

Lerner, J. (2010), Innovation, Entrepreneurship and Financial Market Cycles. *OECD Science, Technology and Industry Working Papers*, *2010* No. 3, pp.1-55.

Li, Y. (2011), Emotions and new venture judgment in China. *Asia Pacific Journal of Management*, Vol. 28 No. 2, pp.277-298.

Liñán, F. and Fayolle, A. (2015), A systematic literature review on entrepreneurial intentions:

citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, Vol. 11 No. 4, pp.907-933.

Marcotte, C. (2013), Measuring entrepreneurship at the country level: A review and research agenda. *Entrepreneurship & Regional Development*, Vol. 25 No. 3-4, pp.174-194.

McMullen, J. S., Bagby, D. R. and Palich, L. E. (2008), “Economic freedom and the motivation to engage in entrepreneurial action”, *Entrepreneurship Theory and Practice*, Vol. 32 No.5, pp.875-895.

Morgan, J. and Sisak, D. (2016), Aspiring to succeed: A model of entrepreneurship and fear of failure. *Journal of Business Venturing*, Vol. 31 No. 1, pp.1-21.

Nabi, G. and Liñán, F. (2013), Considering business start-up in recession time. The role of risk perception and economic context in shaping the entrepreneurial intent. *International Journal of Entrepreneurial Behaviour & Research*, Vol. 19 No. 6, pp.633-655.

Reynolds, P. D. (2011), *New firm creation: A global assessment of national, contextual and individual factors*. Now Publishers Inc.

Reynolds, P. D. (2012), “Entrepreneurship in developing economies: The bottom billions and business creation”, *Foundations and Trends in Entrepreneurship*, Vol. 8 No. 3, pp.141-277.

Santos, S.C., Caetano, A., Spagnoli, P., Costa, S.F. and Neumeyer, X. (2017), Predictors of entrepreneurial activity before and during the European economic crisis. *International Entrepreneurship and Management Journal*, Vol. 13 No. 4, pp.1263-1288.

Sarasvathy, S.D. (2001), Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, Vol. 26 No. 2, pp.243-263.

Sengupta, S., Sahay, A. and Croce, F. (2018), “Conceptualizing social entrepreneurship in the context of emerging economies: An integrative review of past research from BRIICS, *International Entrepreneurship and Management Journal*, Vol. 14 No. 4, pp.771-803.

Thai, M. T. T. and Turkina, E. (2014), “Macro-level determinants of formal entrepreneurship versusinformal entrepreneurship”, *Journal of Business Venturing,* Vol. 29 No.4, pp.490–510.