

A CREDIT POLICY FRAMEWORK FOR ENTREPRENEURSHIP

Neven Vidaković¹,

Abstract

This paper looks at the connection between credit and entrepreneurship. The main focus of the paper is on the recognition that new entrepreneurs need financial help in order to start their ventures. To be able to do that they need to obtain financing. This in developed markets is done through the capital markets, but in bank centric economies where most funding comes from banks entrepreneurial financing can be challenging. This paper recognizes this constraint and proposes a credit policy framework which would stimulate entrepreneurial financing.

Introduction

Entrepreneurship lies at the foundation of any prosperous economy. Without the ability to generate new ideas and create new solutions for existing problems there can be no economic growth and a long-term increase in productivity. New business ventures are the driving force of economic prosperity. This approach to economic growth goes back at least to the era of Schumpeter (1942). However, the moment after every single entrepreneurial idea is conceived, it runs into a wall. This problem can best be framed as the question: Who is going to fund my idea? In highly developed economies with large and economically important and efficient capital markets the answer is rather simple: Someone will fund a new business idea through capital market mechanisms. Just as there are many business entrepreneurs in developed economies, there are also many financial entrepreneurs who are willing to fund new ideas. At least, this approach is true for the United States, but it does not hold true in Europe, and especially in Eastern Europe, as shown in Belke, Fehn, Foster (2006).

In a bank-centric economy, like most European economies are, or in a country that does not have developed capital markets, like most transition countries are, the answer to the question of who will fund new entrepreneurial ventures is simple: No one.

This paper recognizes the problem new entrepreneurs have in obtaining funds for their projects. The issue is known as credit constraint, the inability to obtain a desired amount of credit. The paper also recognizes the problem that most European economies do not have developed capital markets that are going to fund new ideas, and they do not have the ability to develop capital markets in a short period of time. Using all these constraints, this paper tries to create a monetary and credit framework in which banks will give high-risk loans to new entrepreneurs who have insufficient collateral. In essence, the paper proposes a structural framework for an entrepreneur-oriented credit policy in a bank-centric economy.

Before we move further into the paper, there are some things we must immediately get out of the way. One of them is to answer the obvious question of why someone would fund a new business venture. The answer is to make money since profit has always been the main driving force

¹Professor, Effectus University College for Finance and Law, Zagreb, Croatia, nvidakovic@vsfp.eu

in economics. Another item we must address is the existing framework for stimulating entrepreneurship, in this case EU funds. We should immediately dispense with any notion of entrepreneurship being financed with EU funds. The explanation is simple: The procedures are complex, lengthy, have stringent requirements and are not focused on fostering new ideas and development. For the economic effect of EU funds on economic growth see Mohla and Hagenc (2010), and for their inability to generate success see Matek, Miletić, Poljak (2015). The proposal for funding entrepreneurs made in this paper is simpler than complex EU funding, more user friendly and focused on the entrepreneur and his idea, and not on how much bureaucracy must be satiated. Also, the proposal to stimulate entrepreneurial activity must use the existing financial structure, not demand a new one.

If capital markets cannot be used to fund entrepreneurial ideas, then the burden of funding has to fall on banks. The problem we face is how to make such lending profitable for them. Banks are conservative by nature and are not risk averse especially toward new clients who do not have a long-standing business reputation. So the main focus of the paper must be on how to make the funding of entrepreneurial activity profitable for them.

Before we move into the model, we will explore the nature of entrepreneurship and the main problems it faces. Entrepreneurship is difficult to quantify and it is difficult to determine its source. For example, Thurik and Dejardin (2012) provide an overview of how culture affects entrepreneurship. They also analyze three main theories of entrepreneurship. The first theory is an aggregate psychological trait. The higher the number of entrepreneurs in an economy, the higher overall entrepreneurship will be. This concept is further explored in Inglehart (1997). Social legitimation theory points to the overall social status of entrepreneurs. The higher the social status that an entrepreneur has, the higher the number of entrepreneurs in an economy will be. This theory is explored in detail in Etzion (1987). The third theory is dissatisfaction theory, as explained by an example in Baum at all (1993). It is a simple theory in which entrepreneurs have undertaken their first entrepreneurial venture simply because they were not happy with their existing job.

Regardless of which theory we use to determine the rationale for entrepreneurship, or what the socio-psychological explanations of entrepreneurship are, the fact remains that entrepreneurship is essential for economic growth. The theoretical connection between economic growth and entrepreneurship can be found in Dejardin (2000). The connection of entrepreneurship and economic growth has also been tested on an empirical level. In a large study of 188 countries Berthold and Grundler (2012) found that entrepreneurship is the key for economic growth. There are many factors that affect economic growth, but based on their study, it is clear that an increase in entrepreneurship does lead to an increase in economic growth. If the level of entrepreneurship is high, economic growth will also be high.

The fact that a country or people in a society are more prone to entrepreneurship is a necessary, but still insufficient, requirement for an increase in economic growth. There are other factors that are needed for entrepreneurs to succeed. This point is clearly made by Wong, Ho, Autio (2005), who conclude that entrepreneurship is important, but it cannot be the sole reason for economic growth. This conclusion should also be analyzed in conjunction with Berthold and Grundler (2012), who, in the aforementioned study, clearly mention two important elements of successful entrepreneurship. The first one is political stability and the second one is the risk-taking approach of the entrepreneur. The need for political stability for economic growth is not unknown. The connection of political stability and economic growth has been clearly determined in Alesina et al. (1992), and Alesina and Perotti (1996). Legal and political stability has been shown to be essential for economic growth in the long run. The rule of law and a stable political framework are essential for providing the economic environment for entrepreneurial success. The second important element for entrepreneurship is that the entrepreneur has to be someone with smaller risk aversion and who is willing to take on the risks involved in entrepreneurship. This aspect is also mentioned in an older paper by Kihlstrom and Laffont (1979).

The importance of entrepreneurship is also recognized by government when creating fiscal policies. Many governments have programs whose sole purpose is to stimulate economic growth through initiatives designed to encourage entrepreneurship. For an overview of these economic policies it is useful to look at Ács, Autio, Szerb (2014). For a particular example of measures to jumpstart entrepreneurship in Croatia, see Poljak and Udovičić (2014).

We shall focus more on the element of risk taking as part of entrepreneurship. Being an entrepreneur is different from being an innovator. There is a clear difference between having an idea to realizing that idea in business form. The one step to bridge the difference is the issue of financing. To change from being an innovator to being an entrepreneur, a person must have the financial means to turn a business idea into business activity. To take this step, some form of financing is needed. This financial constraint can be overcome by credit.

The importance of credit in entrepreneurial activity is clearly made in Bassetto, Cagetti and De Nardi (2015), who analyze a model in which entrepreneurs are credit constrained. The novelty of the model is that entrepreneurs are explicitly modeled and represent a micro foundation for a macroeconomic model. The importance of this paper is that the model created is used to analyze existing problems of the US economy, and the conclusions are startling. The paper concludes that post-2008 crisis fiscal policy has, in fact, hindered growth and that economic recovery has been slow and timid precisely because entrepreneurs have not been able to obtain credit and use it to spur economic growth and business expansion. This clearly links the existing problems of economic growth with the behavior of banks after the 2008 crisis and their credit policies, which can only be described as tight. The paper states that there is great importance in how banks distribute credit in the economy and to whom such credit is distributed. This assertion sheds new light on banks and their role in the economy. The standard assumption is that savings equals loans, but Bassetto, Cagetti and De Nardi (2015), have shown there is significant importance in the way banks determine to whom they should lend.

The issue of how to finance entrepreneurial activity is at the heart of this paper. The next section tries to connect banking theory with entrepreneurship. A simple model of a bank's behavior is created in order to postulate that bank's business problem. We then develop a model with a solution for how banks could stimulate credit activity oriented toward entrepreneurs. The third section of the paper analyzes potential problems with the model and the final part presents the conclusions.

Theory of banking and entrepreneurship

Banks formulate their credit policies based on the amount of risk they are willing to take. Their risk appetite is determined individually by each bank and it is inversely related to the probability of a loan being repaid. Although banks face many risks, there are two main risks that are the focus of the banking business, credit risk and liquidity risk. These risks are intertwined. A bad loan by definition is a loan that is not being paid back, therefore the bank is not receiving the expected cash inflow. A decrease in the expected cash inflow creates a problem in the term structure of the bank and affects the bank's liquidity. Because of this the banks are forced to pay strict attention to the probability of a loan being paid back, hence the constant monitoring of credit quality. In order to increase the probability of the loan being paid back, banks require collateral and have a strict evaluation of credit quality. Banks are always willing to lend more to companies and households that require fewer funds and have more collateral.

There are two types of collateral in terms of a theoretical set up that a bank can use. The first type is explicit collateral, which is based on the existing assets owned by the creditor. A classic example of this type of collateral is a mortgage. A bank is willing to extend a loan, but it takes

under collateral a property that it can confiscate if the loan is not paid back. The second type is implicit collateral. This type of collateral is based on future income and future cash flow from business activities. An example of this type of a loan is a checking overdraft. Banks allow customers to use more money than they have in their accounts based on the assumption that future paychecks will cover the overdraft. Implicit collateral is not uncommon. There are many other types of debt instruments that do not have explicit collateral, such as “unsecured bonds.” The ability to obtain an unsecured loan with implicit collateral is proportional to the overall quality of a creditor. For more on the way credit policy functions in both theory and practice, see Gregurek and Vidaković (2015).

Entrepreneurship, by its nature, means having a new business idea and the willingness to start a business enterprise based on that idea. The less developed the business, the lower the amount of explicit collateral that can be used, so a bank has to rely on implicit collateral based on the quality of the project.

The main “Catch-22” of the relationship between banking and entrepreneurship is precisely at this point. Banks want to lend funds to a company that will be able to repay the loan, however many new entrepreneurs do not have a good enough business track record to convince banks to loan them money. The flip side of this problem is that there can be no economic growth without new companies and new ideas flowing into the economy, as we showed in the first part of this paper.

Let’s set up a simple problem that a bank faces when there is implicit collateral. There is probability p , the business venture will be successful, and probability $1-p$, the business venture will not be successful. The value of p comes from a bank’s subjective distribution of the credit risk. The bank has some threshold p^* , which is the minimum probability of a loan being paid back, and which is necessary for a bank to approve the loan. The bank will approve a loan in the amount of loan L . The expected payoff R , for the bank is:

1.
$$E_I[R] = p * (L + r) + (1 - p) * 0$$

If a business venture is successful, then the bank will get back the loan L and the expected interest rates r , from the loan. If the business venture is not successful, the bank will get 0 since the collateral is implicit.

In the case of explicit collateral, the expected payoff for the bank is going to be:

2.
$$E_E[R] = p * (L + r) + (1 - p) * C$$

where C is the collateral used to obtain a loan. As for the value of the collateral, there is a basic restriction in the form of $0 < C < L\tau$. The value of the collateral has to be greater than 0. The value of the collateral is a fraction of the value of the loan. The percentage amount of the loan that is covered by collateral is parameter τ , which has the property $0 < \tau \leq 1$. The parameter τ must be greater than 0 since the collateral must have some value, but it can also be 1. If parameter τ has a value of 1, the loan is fully secured by collateral.

As previously mentioned, a bank will prefer to lend when there is explicit collateral, which is as much collateral coverage as possible. For a bank to lend under implicit collateral, the following condition must be met:

3.
$$E_E[R] = E_I[R]$$

The expected return on a loan with implicit collateral and a loan with explicit collateral must be the same. In this case, lending for the bank will be equivalent. This is not an easy requirement. In fact, it cannot be met by the entrepreneur himself. The solution requires a broader interference.

A proposed solution

There are two main solutions to the mathematical requirement presented by equation (3) in the previous section. The first solution is a guarantee scheme by the government. In such a case the government would take all of the credit risk upon itself.

There are several problems with this solution. The first one is that it interferes with the market mechanism and it removes a bank's expertise from the business relationship. Banks will lend under such a scheme only because they do not have any risk and they will not analyze the projects. Also, since the government is approving projects, there is a possibility for corruption. The process does not utilize the expertise of banks and it interferes with market mechanisms.

The second solution is some sort of fund that will give credit to entrepreneurs. Such a fund can exist at the national or supranational level. This idea has already been rejected as inefficient at the beginning of this paper.

Therefore, I want to propose an alternate solution that will involve banks directly in the loan approval process. The main objective of this proposal is to create a business framework in which banks will be willing to lend money to new entrepreneurs and create a positive business environment.

It is important that banks determine which loans are granted. The reason is simple: Banks have a long-term relationship with clients. They also have experienced personnel who are well versed in the methods of credit analysis. Also, banks have the resources to monitor the funds used and to evaluate the quality of proposed projects.

There are seven separate elements that must be considered for our proposed solution to work: tax incentives, liquidity, the chart of accounts, control of the loans, projects to be funded, the legal framework and control of the funds provided to entrepreneurs. For this proposal to work, there must be a system of checks and balances that will structure the system for the maximum long-term benefit.

We will first determine the source of the liquidity for the loans. Entrepreneurial loans granted by a bank must have a long-term stable source of funds. The only way for a bank to secure that source of funds is to issue long-term, fixed interest rate bonds in the local currency. By issuing bonds, funding for the loans is secured, the interest rate expense is fixed since the interest rate on the bonds is fixed, and currency risk is eliminated because the bonds are in the local currency.

Now we must overcome the main obstacle. Earlier in the paper it was clearly stated the requirement the expected return on the loan with implicit collateral and expected return on a loan with explicit collateral must be equal in order for banks to make loans to entrepreneurial start-ups or fledging businesses. The bank must be indifferent between lending to businesses with implicit collateral and businesses with explicit collateral. The probability of success must be the same for both types of loans, and the profit from lending for both types of loans must be the same. To achieve that, we have to provide explicit collateral for entrepreneurial loans that only have implicit collateral. **This can be done by providing a tax subsidy for bad entrepreneurial loans.** Just to be clear, we are not talking about a tax deduction, but a tax subsidy, which means that if the bank has to pay 100 monetary units in taxes and has 80 bad entrepreneurial loans, it will only have to pay 20 monetary units in taxes. Under this condition the bank is not taking any credit risk since all of the risk is compensated by the tax subsidy. Tax payments that the bank has to pay to government

serve as implicit collateral for entrepreneurial loans. For the bank, tax is a cost, just like bad loans are a cost. The bank is indifferent to whether it is paying taxes or writing off bad loans. This proposal resolves the problem of credit risk that entrepreneurial loans have. Banks can either choose to pay taxes or to write off bad entrepreneurial loans. Both elements are a cost for a bank so there is no real distinction between the costs.

This scheme limits the size of entrepreneurial loans to a bank's annual profits. Since most of the credit risk that the bank can cover is equivalent to the income tax that it has to pay, the amount of loans will not be a significant share in the overall banking system. Although this assertion might seem to be a negative argument, in reality it is not. For an economy it is much better to have small, but highly focused loans rather than large loans that have a dubious economic impact. Also, as time goes on, entrepreneurial loans will increase in size, so the actual level of entrepreneurial loans does not have an upper limit. It is only limited by the connection of write-offs and a bank's income tax. Also successful entrepreneurial ventures will grow and over time they will be able to provide explicit collateral to the bank, thereby leaving the proposed scheme and creating room for new entrepreneurial loans. Bad loans will be written-off also providing room for new entrepreneurial loans.

We now come to the issue of how to control both the assets and the liabilities side of the transactions in terms of accounting. The problem can be solved through the chart of accounts set up by a regulator. The regulator must establish special accounts where the bonds that are issued to fund lending will be booked and where loans that are issued will be booked. Bonds that are issued should not be subject to any regulation like a reserve requirement, so there will be no increase in the cost of funds because of regulatory burden. These loans also must be given a weight of 0 when used for calculating capital adequacy. This calculation is important so that the loans do not increase the bank's need for capital. This will also make loans more attractive for the banks since their capital burden is smaller.

The importance of the chart of accounts is not only as a means of control, but as the first element in a system of checks and balances needed for the project to be successful. A clearly specified chart of accounts is necessary so that the regulator can follow which funds were used to finance which projects.

The second element of checks and balances comes from the government in the form of special legislation for entrepreneurial loans. We have stated that the whole plan hinges on a bank's willingness to lend to entrepreneurs. Banks will be prepared to do that if there is some incentive. We have specified the incentive: A tax subsidy. However it is up to the government to specify the requirements for loans funded under this scheme. It must institute special legislation regarding the conditions for loan approval. That legislation should state which loans, from which sector of the economy, and under which specific criteria, can be considered entrepreneurial loans. The criteria have to be simple and easy to understand. The main object of this proposal is to simplify things, not to complicate them. The first criteria obviously must be the size of the business and size of the loan. A minimum and maximum limit have to be set. The second criteria could be the number of new jobs created under the entrepreneurial project. The third criteria should be the overall viability of the project. There would also have to be regulations regarding the term of the loan, the grace period before repayment of the loan starts, and on the maximum interest rate spread the bank can charge. The legislation would then be incorporated into the credit approval process by banks and controlled by the central bank, so no further government involvement would be needed.

The third element of the checks and balances system is left up to the banks. The quantitative criteria can be determined by the government, but the qualitative requirements in the form of assessing the overall probability of success of the project would be the bank's responsibility. The bank would have to determine if it wants to fund the project or not. In this way, the entire scheme fully utilizes the bank's experience and knowledge.

We have now created a triangle of checks and balances between all of the participants in the process. The government has to determine the overall criteria for a project to be viable using this scheme. The central bank has to make necessary adjustments in the chart of accounts and allow the bonds that are issued not to be subject to regulation. Finally, banks can choose which projects are to be funded based on their overall experience. Using this approach, each of the parties in the process is utilizing its strongest point and creates an environment that will foster economic growth and the development of entrepreneurship.

The approach we have suggested here can create an initial boost for small entrepreneurs who are looking for funding, but do not have necessary business references to obtain it. The approach uses each of the participant's strong points and provides the opportunity for banks to use credit policy to generate new jobs and economic growth and the banks are not going to lose anything by extending credit to entrepreneurs since the cost of credit is covered.

Potential problems

However, there are other elements that also must be addressed if this proposal is to work. The framework proposed in this paper is based solely on the monetary aspects of lending and credit activity. Other aspects are outside of the scope of this paper. The main participants in this model are banks, fiscal policy and entrepreneurs, but in the economy there are other factors that make a significant impact on entrepreneurs.

One of the main problems of the business activity in general is a fully functional and stable legal framework. This issue is described in Scully (1988), and Posner (1998). There are many studies that show the importance of an efficient judicial system and business success. We have already mentioned Alesina et al. (1992), and Alesina and Perotti (1996). The stability of the political and judicial systems are issues outside the scope of this paper. However, there are some financial elements that should be addressed. The first one is the tax subsidy that is at the heart of the proposed scheme. The initial result of the project would be a decrease in tax revenue for the government, but in the long run the new jobs created by investments and entrepreneurship would outweigh any negative effects. As long as the new jobs criteria for loan approval is met, the impact on the overall economy will be positive. As stated in the introduction of this paper, entrepreneurship means taking risks.

Another important element is the issue of the profitability of the banks. If banks record a loss, then there is no benefit for them to receive a tax subsidy. If this is the case, then banks can be given a tax credit for future periods of positive income.

There is also the issue of moral hazard. If the legislation is set in place, will the banks actually issue any loans to new entrepreneurs? The answer to this question cannot be given, considering the general problems with economic growth that countries have experienced since the crisis in 2008. The solution proposed here is something that could be used and not dismissed as overreaching, abstract or controversial. Considering the discussion of helicopter money as proposed by Turner (2015), it is possible that what is proposed in this paper is not outrageous at all.

Conclusion

This paper tries to bridge the gap between theoretical and practical problems in the financing of entrepreneurship. The theoretical problem lies in the issue of a bank's need for collateral and a high probability a loan will be repaid. Because of this banks are reluctant to make loans to start-up

entrepreneurial activities. The practical problem is how to create an economic structure in which it is profitable for banks to make high risk loans without any collateral. The paper creates a theoretical framework to create a practical framework in which it is profitable for banks to issue loans without any collateral.

The core of the paper is a financing scheme under which a government would create a legal framework and tax incentives for banks to encourage lending to entrepreneurs. Banks would evaluate projects and decide which ones to fund under specific conditions, and entrepreneurs would have access to a stable source of financing. The proposal involves activities from all participants in the economy: legislators, fiscal policy, central bank and entrepreneurs, but in the end the framework proposed is a viable framework for a entrepreneurship oriented credit policy.

References

- [1] Ács Z.J., Autio E., & Szerb L. (2014), National Systems of Entrepreneurship: Measurement issues and policy implications. *Research Policy*, 43(3): 476-494.
- [2] Alesina, A., Özler, S., Roubini, N. & Swagel, P. (1992), Political Instability and Economic Growth. NBER Working Paper, No.4173
- [3] Alesina, A. & Perotti, R. (1996), Income Distribution, Political Instability, and Investment. *European Economic Review*, 40(6): 1203-1228.
- [4] Bassetto M., Cagetti M. & De Nardi, M. (2015), Credit Crunches and Credit Allocation in a Model of Entrepreneurship. *Review of Economic Dynamics*, 18(1): 53-76.
- [5] Baum, J.R., Olian, J.D., Erez, M., Schnell, E.R., Smith, K.G., Sims, H.P., Scully, J.S. and Smith, K.A., (1993), Nationality and work role interactions: A cultural contrast of Israeli and US entrepreneurs' versus managers' needs. *Journal of Business Venturing*, 8(6): 499-512.
- [6] Belke, A., Fehn, R. & Foster, N. (2006), Does Venture Capital Investment Spur Employment Growth?. *Finance India*, 20(1): 75-98.
- [7] Berthold, N. & Gründler, K. (2012), Entrepreneurship and economic growth in a panel of countries. *Wirtschaftswissenschaftliche Beiträge des Lehrstuhls für Volkswirtschaftslehre, Wirtschaftsordnung und Sozialpolitik, Universität Würzburg*, No. 118
- [8] Dejardin, M. (2000), Entrepreneurship and economic growth: an obvious conjunction? Introductory Discussion Paper Ref. IDS DP 2000-08, Indiana University, Bloomington. <http://econwpa.repec.org/eps/dev/papers/0110/0110010.pdf>
- [9] Etzioni, A. (1987), Entrepreneurship, adaptation and legitimation. *Journal of Economic Behavior and Organization*, 8(2): 175-189.
- [10] Gregurek, M. & Vidaković, N. (2015), Bankarsko poslovanje, Visoko učilište Effectus – visoka škola za financije i pravo, Zagreb, 606 pages
- [11] Inglehart, R. (1997), Modernization and post-modernization: cultural, economic and political change in 43 societies. Princeton, NJ: Princeton University Press
- [12] Kihlstrom, R.E. & Laffont, J.J. (1979), A General Equilibrium Entrepreneurial Theory of Firm Formation Based on Risk Aversion. *The Journal of Political Economy*, 87(4): 719-748.
- [13] Matek, P.P., Miletić, D. & Poljak, D. (2015), Can alternative funds match UCITS success? *Bančni vestnik*, 64(7-8): 15-18.
- [14] Mohla, P. & Hagenc, T. (2010), Do EU structural funds promote regional growth? New evidence from various panel data approaches *Regional Science and Urban Economics* 40(5): 353-365.
- [15] Poljak, D. & Udovičić, L. (2014), Economic cooperation funds in Croatia: purpose and effects on Croatian economy. Third international conference on Employment, education and entrepreneurship, Beograd, Fakultet poslovne ekonomije i poduzetništva Beograd (BEE), Volume Finance, insurance and investment Pages 133 - 148

- [16] Posner R. (1998), Creating a Legal Framework for Economic Development. World Bank Research Observer, Feb. 1998, p. 1.
- [17] Schumpeter, J. A., (1942), Capitalism, Socialism and Democracy, New York: Harper and Row.
- [18] Scully, G. W. (1988), The Institutional Framework and Economic Development. Journal of Political Economy, 96(3), 652–662.
- [19] Thurik, R. & Dejardin M. (2012), Entrepreneurship and Culture. In Marco van Gelderen, Enno Masarel. Entrepreneurship in Context, Routledge, pp.175-186, 2012, Routledge Studies in Entrepreneurship
- [20] Turner, A. (2015), The Case for Monetary Finance – An Essentially Political issue, 16th IMF Jacques Polak Research Conference
<http://www.imf.org/external/np/res/seminars/2015/arc/pdf/adair.pdf>
- [21] Wong PX, Ho YP & Autio E. (2005), Entrepreneurship, innovation and economic growth: Evidence from GEM data. Small business economics, 24(3): 335-350.