

**Bank loans, start-up subsidies and the survival
of the new firms: an econometric analysis
at the entrepreneur level¹**

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Abstract

We evaluate the impact of bank loans and start-up subsidies on the survival of the new firms. This work relies on the SINE94 survey that provides rich information on the entrepreneurs and their start-up projects. We use the propensity score matching methodology, in the case of multiple treatments, in order to evaluate the difference between the survival function the new firms have with their funding and the survival function they would have had with a different funding. We reach three conclusions. First, start-up subsidies increase significantly the survival of the firms created by former unemployed people, while they have no effect on the survival of the firms created by former employed people. Second, the allocation of subsidies acts like a screening process that improves on the performances of the bank loans. Third, the effect of subsidies is stronger than the effect of the bank loans because the former funding is attributed to a larger number of recipients.

Keywords: Bank loan, propensity score, matching, unemployment, start-up, policy evaluation, self-employment, subsidy, entrepreneur.

JEL: C14, D21, D92, J23.

Prêt bancaire, aides publiques et survie des nouvelles entreprises : une analyse économétrique à partir des méthodes d'appariement sélectif sur données d'entrepreneurs

Résumé

L'objet de cette étude est d'examiner l'effet du financement bancaire et des aides à la création d'entreprises sur la longévité des nouvelles entreprises. Ce travail se base sur l'enquête SINE 94 qui permet d'obtenir de nombreuses informations sur les créateurs d'entreprises et leurs projets. La méthodologie employée est celle de l'appariement sélectif, dans le cas du traitement multiple, qui permet d'évaluer l'écart entre la survie des entreprises aidées et les survies qu'elles auraient eues si elles n'avaient pas été aidées. Nous parvenons à deux conclusions principales. Premièrement, les aides permettent bien d'améliorer significativement les chances de survie des entreprises créées par d'anciens chômeurs mais n'ont pas d'effet significatif sur la survie des entreprises créées par d'anciens actifs occupés. Deuxièmement, l'obtention d'un prêt bancaire améliore fortement les chances de survie de toutes les entreprises notamment quand il est associé à une aide. Globalement, l'effet des aides l'emporte sur les prêts en raison du plus grand nombre de bénéficiaires.

Mots-clés : ACCRE, appariement sélectif, chômage, création d'entreprise, évaluation de politiques microéconomiques, prêt bancaire, SINE, subvention.

Introduction

During the last twenty years, unemployment has been steadily increasing in France, from 4% over 1970-1979 to more than 10% over 1990-1994. In the same time, the average length in unemployment almost doubled. The share of long-term unemployment raised from 23% over 1970-1979 to 38% on 1990-1994. Many policy measures were applied in order to tackle this problem. One of these policies, existing in many OECD countries, is to favor start-ups.²

The main start-up policy in France is the ACCRE (Aide aux Chômeurs Créateurs ou Repreneurs d'Entreprises). This mechanism grants the formerly unemployed workers a start-up subsidy of 4878 euros and a suppression of labor taxes for the first year. The effect of this measure is thus to reduce both the fixed cost of firm creation and its variable cost during the first year.

This type of policy measure has been studied in several theoretical works. From a macroeconomic perspective, a firm creation can be considered as a transition on the labor market (Fonseca, Lopez-Garcia and Pissarides, 2001): it allows for reducing the number of workers looking for a job and to increase the number of vacancies. Therefore, a high start-up cost increases unemployment through two channels. On the one hand, high start-up costs dissuade potential entrepreneurs to create a business so that will join the workers looking for a job; on the other hand, the lower number of firms created involves a lower number of vacancies. Therefore, at equilibrium, higher start-up costs are associated to a lower employment level. A start-up subsidy will thus modify the equilibrium on the labor market toward a higher employment level.³

From a microeconomic viewpoint, the obstacles to firm creation originate in the imperfections of the credit market. Evans and Jovanovic (1989) consider the situation where the amount of initial capital that an entrepreneur can borrow is limited. The

² See the APCE report.

³ The authors also provide evidence from macroeconomic data in European countries: they find that the employment rate is decreasing with the start-up cost, measured by the length of time needed to create a firm. More generally, the potential of start-up policies seems promising since a recent study by Blanchflower, Oswald and Stutzer (2001) shows that there are much more

choice of occupation results from a trade-off between the revenues given by the activities available, but here the financial constraints make some start-up projects unreachable. A start-up subsidy will be useful because, on the one hand, it makes a larger number of projects reachable and, on the other hand, because the most gifted (potential) entrepreneurs are the ones that have the strongest incentives to run start-ups since they have more to earn in this activity than working for somebody else.⁴

This imperfection of the credit market also involves a higher failure rate of the new firms (Milne and Robertson, 1996). The reason is that small firms can only count on their initial capital and on their sales to maintain their activity. Therefore, one can consider that the start-up projects are similar to investment projects with different average rates of return and risks, with an average return increasing with the risks.⁵ An entrepreneur with a small initial capital will succeed only if (s)he chooses a project with a high rate of return, and these projects are the ones that have the highest failure rate. This implies that the failure rate of firms is inversely related to their initial capital for a given line of business. The effect of a start-up subsidy is clear: it entices entrepreneurs to undertake projects that are less risky than the ones they would undertake without the subsidy.

Globally, start-up subsidies should increase the number of firms created, their expected life and the number of vacant jobs.

Relatively few econometric studies have been dedicated to the importance of the financial constraint for start-ups.⁶ Bates (1990) studied the survival probabilities of American firms and concludes that both the education level of entrepreneurs and their initial capital significantly increase their chances of success. On the contrary, Cressy

potential entrepreneurs in Europe than most people think. According to this study, 42% of the French people would prefer to run their own business while only 9% do.

⁴ For an analysis of firm creation under credit market imperfections, see Lucas (1978). Jovanovic (1982) has extended this analysis to the case where the entrepreneurs learn their abilities by practice. For another approach, based on the differences of risk-aversion between individuals, see Kihlstrom and Laffont (1979).

⁵ In the case of a new firm, the risk typically depends on the activity chosen by the entrepreneur.

⁶ The past econometric studies first focussed on the determinants of the decision to create a firm. On this topic, see Evans and Jovanovic (1989), Evans and Leighton (1989), Holtz-Eakin, Joulfaian and Rosen (1994a, 1994b), Lindh and Ohlsson (1996).

(1996), on English firms, concludes that there would be no financial constraint on firm start-ups. However, the latter study suffers from data limitations.⁷

Recently, there have been several evaluations of start-up subsidies in Europe. Pfeiffer and Reize (2000) study the effect of the subsidies given to the formerly unemployed workers in Germany. They conclude that public support would have a negative effect on firm survival in the formerly East Germany and they find no effect on employment. The latter result, on employment, has however been re-examined by Almus (2001) on comparable data. The author finds that, if one considers firms that have survived at least 6 years, there is a positive effect of start-up subsidies on employment growth. Battistin, Gavosto and Rettore (2001) study the effect of public support to start-up by young entrepreneurs in Italy. The authors compare the hazard rates (i.e. the conditional probability of failure) of supported and non-supported firms. They find that the hazard rate of supported firm is increasing over time while the hazard rate of the non-supported firms is decreasing. Both hazard rates become similar after 4 years.

Globally, it is difficult to give a clear-cut conclusion about the effect of start-up subsidies in Europe. There are two main obstacles that hamper evaluations. The first obstacle is the data constraint. The second obstacle is that the studies do not always account for all the funding sources, especially the bank loans. Both problems can be fixed thanks to the SINE survey (Système d'Information sur les Nouvelles Entreprises, *lit.* Information System on the New Firms), that has been explicitly made to describe precisely the characteristics of the French start-ups. We will consider both the bank loans and the subsidies when we evaluate the impact of subsidies. We use a matching method that allows to remove the selection biases associated to the allocation of subsidies and loans, and to distinguish the effect of the bank loans and of the start-up subsidies on the survival of the new firms.

In a first step, we study the allocation processes of bank loans and subsidies in order to better understand the formation of the initial capital of the new firms. In a second step, we study the effect of the initial capital and of its structure (loan, subsidy) on the survival of the new firms.

⁷ The "survival variable" is defined as the fact that a bank account open at the National Westminster Bank during the second semester of 1988 is still in activity at the first semester of 1992 (p. 1268). The author concludes that: « an appropriate government policy should make business start-ups more difficult » (p. 1266).

The data are described in section 2 and the formation of the initial capital is studied in section 3. Section 4 presents the methodology used for measuring the effect of bank loans and subsidies on firms' survival. The results are discussed in section 5.

1 Data

The data come from the SINE survey, collected by INSEE, about the start-ups made during the first semester of 1994.⁸ This information source is interesting since it provides the same information both about the projects that have been subsidized and the ones that have not. It also includes the prior labor market status of the entrepreneurs, which allow us to perform separate analysis for the unemployed and the employed. The information available includes the entrepreneur qualification, education and his (her) social environment.

From an evaluation perspective the survey includes the initial capital of the new firms and whether they had a bank loan or a start-up subsidy. The subsidy includes the ACCRE but, in the survey, is not limited to ACCRE.

The original SINE sample includes data on 30000 entrepreneurs, including both firm creations *ex nihilo* and buy-outs and has a 30% sampling rate. For this study, we restrict our attention to the *ex nihilo* start-ups for which the entrepreneur was active (unemployed or employed) at the date of the creation. We have also excluded the creation of subsidiaries by other firms. Notice that matching the SINE file with the file that provides the current survival status involves no loss of information.⁹ There remains 13504 firms after this operation, the fall been explained fully by the elimination of buy-outs, subsidiaries and of formerly inactive people.¹⁰ This data allow us to compute the survival rate up to 3 years after the creation of the firm.

The typical firm in this sample is thus the closest empirical counterpart of the theoretical models we have presented in the introduction: they are independently owned, are likely to face a credit constraint and some of them had a subsidy and/or a bank loans while others did not.¹¹

⁸ This survey is compulsory. For more information on SINE, see Aucouturier and Daniel (1993), Aucouturier (1997) and Lamontagne and Thirion (2000).

⁹ All firms in France are identified by a national identification number (the SIREN code). It is available in all the files we use for this study, so that matching is automatic.

¹⁰ This information is available in the survey.

¹¹ Notice that our « entrepreneurs » also include women (around 25%).

What are the main characteristics of the new firms and are there differences between the firms created by the formerly employed and unemployed entrepreneurs?

The average characteristics of the new firms are presented in Table 1. Entrepreneurs that have entrepreneurs in their family or in their acquaintance make about 60% of the start-ups. For the majority of these firms, the entrepreneurs holds a professional degree, are employees or blue collars and have more than one year of experience in the line of business where the firm is created. Their main motivations are to be independent or a business opportunity. Finally, they more often start their business alone, have made no start-up in the past and often work for the local and regional markets.

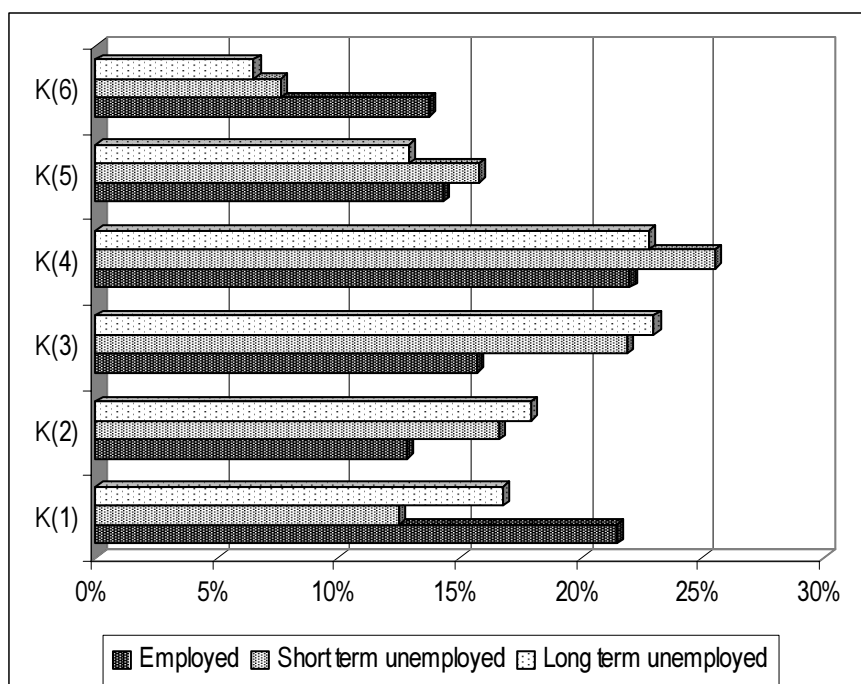
Overall, firms' start-ups result from a business culture that complement the professional experiences of the entrepreneurs in the same line of business.

There are also differences between the formerly employed and unemployed entrepreneurs. Overall, compared to the formerly unemployed, the formerly employed have a higher education, where more often craftsmen and more likely to have created a business in the past. They also invest more often in services.

Two additional differences appear for the long-term unemployed: they are more often without any professional experience in the line of business (42% Vs 27% for the short-term unemployed) and they more often start a business because they cannot find a job (35% Vs 18% for the short-term unemployed).

These differences of characteristics are accompanied by differences of initial capital between the employed and the unemployed (Figure 1). The employed are more often in both the smallest (less than 1524 Euros) and the largest classes of initial capital (more than 38112 Euros). The fact that the unemployed are more often the classes 3 and 4 can be explained partly by the amount of the ACCRE. If we start from a capital of 1524 Euros, the ACCRE alone (4878 Euros) allows reaching 6420 Euros, that is the third class of initial capital. Therefore, a personal contribution or a loan of 1220 Euros would be enough to explain the more important number of firms in the fourth class if initial capital. The stronger presence of the employed in the highest class of capital can be explained both by higher savings (proxied by the qualification of the entrepreneur) and by the acquaintance of the entrepreneur. The latter affirmation deserves however to be comforted by the econometric analysis that we will present later.

Figure 1: Initial capital of the new firms

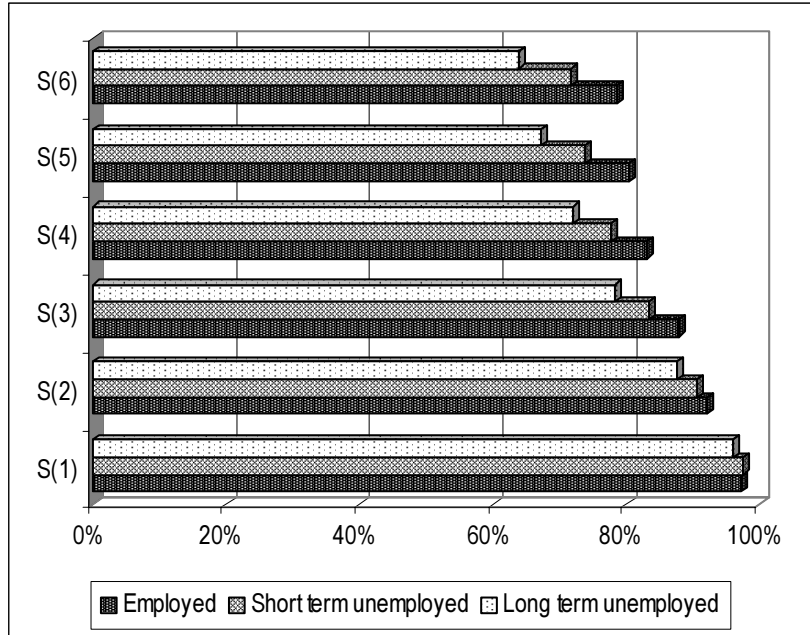


In percentage of the total of each population. The capital classes are in French Francs in the original survey. We have converted it in Euros using the official rate (1 Euro = 6.55957 French Francs). K(1) = less than 1524, K(2) = 1524-3811, K(3) = 3811-7622, K(4) = 7622-15245, K(5) = 15245-38112, K(6) = more than 38112.

The differences of survival are also important between the entrepreneurs that have a different labor market status. After six semesters, 64% of the firms created by long-term unemployed are still active, while the figures are 72% for the short-term unemployed and 79% for the employed (Figure 2).

Table 2 presents descriptive statistics among the entrepreneurs that did not benefit from either a subsidy or a bank loan. The differences of initial capital that remain partly reflect the differences of savings among the entrepreneurs. To easier the comparison, we will restrict our attention to the percentage of entrepreneurs that have an initial capital greater than 7600 Euros (classes 1 to 3): 27% of the long-term unemployed are in this situation, 35% of short-term unemployed and 38% of the employed.

Figure 2: Survival of the new firms



In percentage of the total of each population. S(k) gives the percentage of firms that are still active at the end of the k-th semester after the creation of the firm.

Table 3 shows that the funding sources available to entrepreneurs depend on their past status on the labor market. Short-term and long-term unemployed have a similar funding profile: in half of the cases, they only have a subsidy; in a fourth of the cases a subsidy and a bank loan. The entrepreneurs that have a loan only are rare (5%) and public support is granted to the two-thirds of the unemployed. The long-term unemployed are however at a little disadvantage, since they are more often without either a loan or a subsidy (28%) than the short-term unemployed (20%). The employed are likely to benefit from higher savings and do not have the right to the same public support than the unemployed. Therefore, the majority of the employed have neither a subsidy nor a loan (66%) or a bank loan only (25%).

These first observations suggest that the formerly employed workers rely more on their own money and, sometimes, on a bank loan. On the contrary, the formerly unemployed depend more often on public support for the funding of their start-ups. The reason for this difference is likely that the savings of the unemployed are lower than the savings of the formerly employed workers.

Globally, public support would partly fill the initial capital gap of the unemployed and should therefore be more efficient for them because they are the more likely to be

credit-rationed. This is an additional reason to perform a separate analysis between the unemployed and the employed.¹²

2 The determinants of the initial capital

The variables that we have selected in order to explain the differences of initial capital are the ones that influences savings, the attribution of a bank loan or of a subsidy.¹³ We use the ten following variables in order the explain the initial capital of the start-ups:

1. The number of associates;
2. The qualification of the entrepreneur;
3. The length of experience in the same line of business than the start-up;
4. The highest education degree obtained by the entrepreneur;
5. The existence of entrepreneurs in the family of the entrepreneur or in his or her acquaintance;
6. The motivation for the start-up;
7. The existence of a previous (different) start-up;
8. The market scope;
9. The line of business;
10. The location of the business.

The initial capital is available by interval in the SINE survey. Therefore we estimate an ordered logit model. The results are summarized in Table 4.¹⁴

¹² Another important reason is that they do not benefit from the same policy measures.

¹³ The application forms for the subsidies are available on internet. Their references are : Cerfa 61-2326 for the economic file, 61-237 for the ACCRE application form, 61-2328 for the continuation of the social protection and 61-2329 for the exoneration of labor taxes on the first year. The economic file allows to know what the public authorities know when they decide to grant the subsidy.

¹⁴ The econometric method and the detailed tables are given in appendix 1.

We first find a group of determinants that are common to all entrepreneurs. The highest amounts of initial capital are achieved by the firms with several associates that are located in capital-intensive lines of business (like Hôtels, Cafés, Restaurant). The other determinants refer to the attributes of the entrepreneurs. The workers that were already entrepreneurs before the start-up, the executives and the foremen have a higher initial capital, either because they can get more funding or because they can bring more money of their own.

In addition to these common determinants there remains three differences between the determinants of the initial capital of the employed and the unemployed. First, for the unemployed, the level of capital increases with all the education levels, while this is not the case for the employed. For the former, only the highest qualifications have a better access to capital. This result can be explained by the fact that the unemployed have more often access to start-up subsidies (see below). The second difference is about the experience in the same line of business: a longer experience gives a higher capital for the employed only. Third, the existence of entrepreneurs in the acquaintance has a favorable effect on the initial capital for the employed only.

In order to understand why these differences of determinants show up, we must study the determinants of the bank loan and of the subsidies.

The two binary variables of subsidy and loan allow to decompose the sources of funding in four cases:

1. Neither subsidy nor loan, the benchmark (denoted 0);
2. Subsidy only (denoted A);
3. Loan only (denoted B);
4. Both subsidy and loan (denoted AB).

Since there is no natural order between these four modalities, the standard representation of this type of qualitative variable is the multinomial logit model (see Maddala, 1983).¹⁵

¹⁵ The econometric method and the detailed estimates are presented in appendix 2.

The results of these additional regressions clearly reveal the origin the differences of determinants. For the unemployed, the fact that all qualifications lead to a higher initial capital only comes from the subsidy granting process. Indeed, the education levels are significant for two modalities only: they increase the probability either to get a subsidy only or to get both a subsidy and a loan. Inversely, the education levels do not influences the probability to get a loan only. One effect of the subsidies is therefore that they contribute to allocate the initial capital in a more uniform manner among the different education levels.

The second difference is about the effect of experience. We find that the positive effect for the employed comes from the loan. We also find positive effects of experience on the granting of subsidies for the unemployed but are not reflected in the initial capital figures. This suggests that despite the most experienced entrepreneurs have more often access to a public support; this support would not be enough to fill the gap with the employed. One reason could be that the bank loans given to the employed are of a higher amount than the fixed subsidy of 4878 Euros given to the unemployed.

Third, the effect of the acquaintance on initial capital has a clear origin: It only plays for employed and increases the probability to get a bank loan. Therefore it is an effect that results from a screening by the bank and that could come from collateral requirements.

Overall, we find several sources for the differences of initial capitals. An entrepreneur can lack capital because of the lack of associates, of entrepreneurs in the acquaintance or because of a lack of experience in the line of business. The point is that these differences of initial capital will strongly influence the survival of the new firms, as we will show later.

3 Evaluation of the effect of the initial capital and of the funding sources on the survival of the new firms

3.1 The evaluation problem

The methodology used in this study starts from the seminal paper of Rubin (1974), first developed in medicine for non-experimental data.¹⁶ We want to evaluate the effect of a treatment (i.e., the initial funding structure), denoted T , that are applied to individuals (i.e., start-ups) with attributes X (i.e., their characteristics), in order to improve on a performance y (i.e., the survival function). The treatment can take four values: neither subsidy nor loan (denoted 0), subsidy only (denoted A), loan only (denoted B) or both a subsidy and a loan (denoted AB). The aim of the method is to determine the “causal effect” of the treatment T on the performance y . Here, the performance is the survival probability in semesters. Since there are 6 semesters of data available, we can distinguish the short-term from the medium-term effects of the treatment.

The performance associated to the funding profile $T=k$ is denoted $y_i(k)$ and our goal is to evaluate the impact of this treatment on the survival of firms. We can compare the relative performance of two funding profiles $T=s$ and $T=k$ by using the two following quantities:

- $c_{k,s} = E(y_i(k) - y_i(s) | T = k)$: the expected difference, for the firms with a type k funding, between the survival rate they have compared to the rate they would have had if they had a type s funding. It is the most common evaluation of treatment k (compared to treatment s). Notice that a widespread choice for treatment s is the absence of any treatment. The effect of subsidies alone may therefore be estimated by $c_{A,0} = E(y_i(A) - y_i(0) | T = A)$.
- $\tilde{c}_{k,s} = E(y_i(k) - y_i(s) | T = s)$: the effect that the funding k would have had on the firms that have received the funding s . This quantity measures the opportunity to *change* the treatment of the “ s -firms”. A common choice for s is the absence of treatment

since the issue of extending the subsidies to more start-ups is clearly interesting. This second quantity would be: $\tilde{c}_{A,0} = E(y_i(A) - y_i(0) | T = 0)$.

The main problem is that we never observe the performances $y_i(k)$ and $y_i(s)$ at the same time. Either start-up i benefits from the funding k and we observe $y_i(k)$, or it benefits from funding s and we observe $y_i(s)$. The observable performance is thus:

$$y_i = \sum_j \mathbf{1}_{T=j} y_i(j)$$

We must therefore find an estimate of the average performance $E(y_i(k) | T = s)$ for the start-ups that got a type s funding, and evaluate the average performance $E(y_i(s) | T = k)$ for the start-ups with funding k . This is the problem of the *comparison group*. For the first quantity, we need to find start-ups that had a type s funding but that would have behaved like the k -firms if they had the type k funding.

In order to get the intuition of the method, we shall start from the case of experimental data. With such data, the mean difference of performance between the “ k -firms” and the “ s -firms” provides the effect of treatment k over treatment s . The reason why we can make this comparison on experimental data is that the allocation of the treatment is random so that the characteristics of the “ k -firms” and of the “ s -firms” have the same distribution. The only problem is that subsidies and loans are not allocated as random, as the multinomial regression show.¹⁷ Nevertheless, it is possible to reach a proper comparison on non-experimental data if we match firms that have the same probability to get a given type of funding. The intuition is that if we consider a set of firms that have the same probability to have funding k and that, in this group, there are firms that indeed got funding k and firms that did not, then this difference can be considered as random. A comparison inside the same probability group is therefore relevant to evaluation from non-experimental data.

¹⁶ For a comprehensive introduction, see Rubin (1997); for a presentation of recent developments, see Brodaty, Crépon and Fougère (2002).

¹⁷ If the funding were allocated at random, only the intercepts would be significant.

3.2 Estimation

The performance of funding k over funding s among the firms that had funding k (i.e., among the treated) is defined as:

$$c_{k,s} = E[y(k) - y(s) | T = k]$$

In order to evaluate this quantity, we need both $E[y(k) | T = k]$ and $E[y(s) | T = k]$.

The first quantity can easily be estimated from the available data, since it is the expected performance of funding k for the firms that got it. On the contrary, the second quantity is not observable (i.e. directly estimable) because it is the performance these k -firms would have had if they had funding s instead of funding k . In order to estimate the latter quantity, we need firms that have benefited from funding s but that have characteristics as close as possible from the k -firms.

The variables chosen for the matching are called the attributes (denoted X) and must satisfy the following conditional independence assumption:

$$y(s) \perp T | X.$$

Under this assumption, we have:

$$E[y(s) | T = k, X] = E[y(s) | T = s, X],$$

and we can perform a comparison for each value of X . Integrating over X , we finally get an estimate of the expectation. In practice, this would imply a multidimensional matching and this method would be cumbersome. Fortunately, a theorem allows for simplifying this method to unidimensional matching. Imbens (1999) and Lechner (2001) showed that:

$$y(s) \perp T | X \Rightarrow y(s) \perp T | \Pr[T = s | T \in \{s, k\}, X]$$

$$\text{with } \Pr[T = s | T \in \{s, k\}, X] = \frac{\Pr[T = s | X]}{\Pr[T = s | X] + \Pr[T = k | X]}$$

The quantity:

$$s(k, s) = \frac{\Pr[T = s|X]}{\Pr[T = s|X] + \Pr[T = k|X]}$$

is called the *propensity score* and is the relevant criterion on which to match firms. Notice that this criterion is closely related to discriminant analysis.¹⁸ This implies that the comparison of two firms with different treatments but with similar propensity scores is relevant.

In a first step, we estimate the propensity scores of each start-up from the multinomial logit model. In a second step, we match the start-ups that have a similar propensity score but different treatments. Following Heckman, Ichimura and Todd (1998), we estimate the missing expectation by a kernel estimator. The expected performance that firm i would have had if it had treatment s instead of treatment k is given by:

$$\hat{E}[y_i(s)|T = k] = \sum_{j \in I_s} \omega_j \times y_j, \quad i \in I_k$$

$$\text{with } \omega_j = \frac{K[(s_i(k, s) - s_j(k, s))/h]}{\sum_{j \in I_s} K[(s_i(k, s) - s_j(k, s))/h]}, \quad j \in I_k$$

where $K(x)$ is the Epanechnikov kernel, h the Silverman window and I_k the index set of start-ups that got the funding k .¹⁹ The expected causal effect is estimated by:

$$\hat{c}_{k,s} = \frac{1}{N} \sum_{i \in I_k} y_i(k) - \frac{1}{N} \sum_{i \in I_k} \hat{E}[y_i(s)|T = k], \quad (k, s) \in K^2.$$

This estimator is asymptotically normal and its variance is obtained by the bootstrap with 100 simulations.²⁰ The estimation of $\tilde{c}_{k,s}$ is similar.

¹⁸ See the fourth chapter of Maddala (1983).

¹⁹ It is the Nadaraya-Watson estimator of $E(y(s)|T = k)$. For an introduction to these non-parametric estimation techniques, see Härdle (1990).

²⁰ For a comprehensive introduction to the bootstrap, see Efron and Tibshirani (1993).

3.3 Choice of the attributes

What attributes should we take? The ones that influence both the treatment and the performance.

Indeed, if a variable does not affect the allocation of the treatment, it cannot create a selection and therefore cannot create a selection bias. Similarly, if a variable does not influence the performance, it cannot create a selection bias on this variable *even if* it creates a selection (it is a harmless selection). It is also clear that an attribute may never be influenced by the treatment.

These constraints justify the choice of the attributes that we have made for the multinomial logit regressions. The estimation method can be summarized in the following way:

1. Choice of the attributes. We take the common determinants of the treatment and of the performance.
2. Estimation of the propensity scores (multinomial logit).
3. Determination of the common support of the two types of funding we are comparing. We take the intersection of the intervals defined by the 1st and the 99th percentiles. The percentages of firms available for each comparison are always high and have been reported in appendix 3.
4. Non-parametric estimation of the causal effect on the common support, by the kernel method.

4 Results

In a first step, we study how the subsidies and the loans influence the allocation of the initial capital of the start-ups. In a second step, we examine the effect of the initial capital on firm survival.²¹

²¹ The direct effect of the sources of funding on the survival of the new firm is also presented.

4.1 The effect of the funding sources on the initial capital

We have a good reason to distinguish the effects of subsidies from the effects of the bank loans. Indeed, while the ACCRE subsidy is the same for all the unemployed (4878 Euros), we should not see differences between the short-term and the long-term unemployed regarding the effect of subsidies on the initial capital. On the contrary, the bank loans are individual so that their effect on the initial capital should have a much stronger variance. Table 6 presents the comparison between the effects of subsidies and loans on the initial capital. The evaluation is given in the three columns labeled $c_{k,0}$.

Overall, the two sources of funding (subsidy, loan) increase the initial capital. On an a priori basis, the effect of the unemployed subsidies should be to displace them from the first class of capital (less than 1524 Euros) to the third class (3811-7622 Euros) or to the fourth class (7622-15245 Euros). It is exactly what we find. The granting of a subsidy reduces the number of entrepreneurs in the first class by 15% to 18% and increases the number of entrepreneurs in the classes 3 to 5. Therefore, the initial capital distribution is shifted to the right. A similar effect is found for the employed, but it is less strong, since the shift is from the first capital class to the third one. The reason of this difference is likely that the employed do not have access to the same public support as the unemployed. Since the employed come on average from qualifications that have higher earnings, our result suggests that they get smaller subsidies than the unemployed.

The effect of the bank loans should be different. On the one hand, it is individual while the subsidies are the same for everyone; on the other hand, the bank loans are not limited to 4878 Euros. Therefore, it is not surprising that the shift that we find is stronger for the bank loans than for the subsidies. The attribution of a bank loan reduces the number of firms in the two lowest classes (less than 3811 Euros) by 30% to 35%, and it increases the number of firms present in the highest classes. However, there is a difference of magnitude between the employed and the unemployed: the employed see their presence in the highest class (more than 38112 Euros) increase by 29%, while the figures for the unemployed are between 11% and 12%. Therefore, the bank loans seem to compensate the smaller access to subsidies by the employed.

The strongest initial capital reallocation is obtained when the entrepreneur obtains both a subsidy and a loan. In this case, the short-term unemployed fully compensate their disadvantage with the employed. But this is not the case for the long-term unemployed even in this very favorable situation. Since the amount of subsidy is the same from everyone, the difference can only come from the loans or from the collateral (that are correlated).

It remains to see whether the extension of subsidies or loans to the entrepreneurs that did not have it would increase their initial capital. A priori, we should find exactly the comparable results since the entrepreneurs are comparable by definition of the matching method. These potential effects are given in the columns $\tilde{c}_{k,0}$ and we find the expected results: extending the funding structure would shift the distribution of initial capital in the same way than among the other firms.

4.2 The effect of the initial capital on the survival of the new firms

The reference point of our analysis is the survival of the firms that have the smaller amount of capital (less than 1524 Euros). The first result that we find can be applied to all the entrepreneurs: the survival function is first decreasing and then increasing with the initial capital (Table 7).

More precisely, the start-ups with the highest initial capitals first exhibit a weaker survival during the three first semesters and then, after equating the survival of the other firms during the fourth and the fifth semesters, outperforms the other firms on the sixth semester. Therefore, the failure of the start-ups with a high capital comes out sooner than the failure of the firms with a low capital. The empirical consequence of this property is that it is not possible to evaluate correctly the effect that the initial capital has on survival when the time span of the data is too short.²² Therefore our discussion will consider the effect of the initial capital after six semesters (columns $c_{k,0}$).

²² A similar result is found by Almus (2001) on employment. In the case of this paper, a previous study concluded that there was no effect of start-up subsidies on employment after one year. On similar data, but with a time span of six years, Almus finds that there is a positive effect of start-up subsidies on employment.

The long-term unemployed show up a threshold effect. Below 7622 Euros of initial capital, no survival difference appears. On the contrary, when the initial capital crosses that threshold, the survival rate shifts upward between 7.6% and 25.2% depending on the amount of initial capital. The short-term unemployed increase their performance sooner, when their initial capital is higher than 1524 Euros. Here as well, the survival gain is increasing with the initial capital: from 8.5% to 24.5%. Finally, the employed exhibit a similar pattern as the short-term employed, with a gain increasing from 4.5% to 17.6%. Overall, the effect of the initial capital after three years is significantly positive and it is stronger for the formerly unemployed entrepreneurs than for the ones that were employed.

What would be the effect of an increase of the initial capital on the survival of the new firms that had less than 1524 Euros if they have had more (column $\tilde{c}_{k,0}$)? About the same. Favoring the access to capital for business start-ups would increase the survival rate of the new firms from 20% to 29% after 3 years.

4.3 The direct effect of the funding sources on the survival: the screening effect

All the effects of the subsidies and of the loan do not pass through the initial capital and this is why this third evaluation is useful. The reason why the initial capital is not an exhaustive summary of the firm is that, for instance, the ACCRE (subsidy for the unemployed) is subject to a screening process by the local commissions and also benefits from complementary measures as the exoneration of labor taxes during the first year.²³ Similarly, the banks have their own screening methods. The main interest of this section is to compare the relative quality of the screening by the local commissions and by the banks (Table 8).

The effect of subsidies only is important for the unemployed (column $c_{k,0}$). A survival gain appears at the fourth semester and is still present after three years (7%) for the long-term unemployed. This effect is especially interesting because a comparison of the mean performances did not reveal anything significant. Therefore, in this case, the matching method allowed us to remove an important selection bias. The effect of

subsidies only is similar for the short-term unemployed but it begins at the second semester and is maintained after (from 4.9% to 6.6%).

On the contrary, the subsidies alone have no effect on the survival of the start-ups made by the employed. This result could come from the fact that the subsidies for the employed are not attributed under the same conditions than the subsidies for the unemployed. This difference can therefore originate either in the screening process or in the measures that possibly accompany the subsidies. Our results would suggest, at a first glance, to adjust the subsidy system of the employed toward the one of the unemployed.

Is the screening of the subsidies efficient (columns $\tilde{c}_{k,0}$)? We answer to this question by estimating the effect the subsidies would have had on the entrepreneurs that did not have it. No effect is significant for the short-term unemployed, and some effects are significant at the 10% level only for the long-term unemployed. Since these effects are lower than the effect on the firms that had a subsidy, we conclude that the screening of projects by the local commissions may be efficient.

The effect of loans only is not significant for the unemployed, except at the 10% level for the short-term unemployed with a magnitude that is comparable to the subsidies. At a first glance, the screening by the banks would therefore be less efficient. It is not the case, however, for the employed since the loan has a positive effect on survival at all dates (up to 8.9% after 3 years). Nevertheless, the expected performance among the employed that did not have the loan would have been the same as the ones that got it (7.9% after 3 years, not significantly different from 8.9%). There are thus two problems arising from the screening by the banks: on the one hand, the start-ups by the unemployed do not have a better performance and, on the other hand, the start-ups that did not get a loan would have had the same performance than the ones that got it. This first result on the screening is also supported by the analysis of the firms that had both a subsidy and a loan.

The start-ups that had both a subsidy and a loan benefit both from a better screening, from complementary measures and from a higher level of initial capital. These start-ups

²³ This effect should not play anymore after 3 years.

also have the better performance. The gain after 3 years is 8% for the employed, 12.7% for the long-term unemployed and 14.6% for the short-term unemployed.

The extension of this pattern “screening and loan” to the firms that did not get it also seems to be interesting since the effect on the non-treated is significant and varies between 10% and 12% of additional survival.

The latter result allows to soften the conclusion on the effect that the initial capital has on the survival of the new firms: the projects that have the highest initial capital live longer but they are also projects that benefit both from a loan and a subsidy. This output undoubtedly comes for a significant part from the screening process. These results suggest that only a two-part policy measure, that would combine a screening of the projects with a financial support, would be able to increase significantly the live of the new firms.

4.4 Total effects of subsidies and loans

By correcting for the sampling rate, we have evaluated the aggregate effects of loans and subsidies on the number of firms still in activity after three years (Table 9). Overall, among the firms created in the first semester of 1994, the subsidies have maintained 811 firms in activity, the loans 513 and the combination of both subsidies and loans 936 firms, that give a total performance of 2260 firms. If we allocate the joint effect equality between subsidies and loans, the subsidies would have avoided the failure of 1279 firms and the loans of 981 firms. However, this result comes from the fact that subsidies are given to a larger number of recipients than the bank loans. In order to see this, we should compute the success rate in percentage of the number of recipients. We find that the subsidies have efficiently supported a start-up in 8% of the cases, while the bank loans have an effectiveness rate of 10%. The reason we saw is that bank loans are on average of a higher amount than the subsidies. Therefore subsidies are globally more efficient than loans only because of its larger number of recipients.

Conclusion

This study highlights the importance of the initial capital in the success of start-ups. It therefore suggests that there would remain significant imperfections on the credit market that would weaken the creation of new firms. A higher initial capital is associated to a lower failure rate. However, this effect can only be exhibited after 3 years of activity. The latter results go in the same direction of previous studies that business start-ups policies can only be evaluated when enough years of data are available (Almus, 2001).

In order to examine this issue, we have decomposed our sample in three groups, from the projects that are the less financially constrained (formerly employed) to the most constrained (long-term unemployed). This decomposition successfully shows significant survival differences that are compatible with differences in initial capital.

We study the survival function of start-ups at different date and we distinguish two types of measures likely to be influenced by policy measures. The first one is a subsidy, the second one is a bank loan, which rate could be reduced. The non-parametric analysis of the survival functions clearly shows that the start-up subsidies significantly increase the success of the entrepreneurs that were formerly unemployed. No effect is found for the start-ups made by the formerly employed workers.

Overall, these econometric results go in the same direction as the theoretical model of Evans and Jovanovic (1989), showing that the most gifted entrepreneurs would also be the more capital constrained. Indeed, we find that the survival difference remains constant as time passes by, and this suggests that the supported firms would be well managed.

This study also deals with the opportunity to extend public support to start-ups or not. The local authorities that give most subsidies play an important screening role. In particular, for formerly unemployed people, the bank loan alone has no significant effect on the survival of the start-up while the best performance is achieved by the projects that have both a loan and a subsidy. The explanation for this result it that the projects selected by the local authorities would be of a better quality than the others. It is also possible that the project screening by the banks is made more rapidly and less

deeply, so that the projects that have only a loan fail as often as the ones that are not supported at all.

Overall this study shows that there remain significant imperfections in the credit market, because the public support is efficient among the most finance-constrained entrepreneurs. We can reach two conclusions. First, in the case of the unemployed, the subsidies are efficient and it does not seem interesting to replace it by bank loans. Second, the screening by the local authorities looks efficient and should be maintained.

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Table 1: Characteristics of the Start-ups

Long-term unemployed refers to more than one year in unemployment

%

Former occupation	Long-term unemployed	Short-term unemployed	Employed
Number of associates			
- None	73.2	70.9	62.2
- One associate	22.9	22.5	26.3
- Two associates or more	3.2	6.7	11.5
Qualification			
- Craftsman	3.0	2.9	16.9
- Entrepreneur	1.3	1.6	10.3
- Executive	17.2	15.6	16.9
- Foreman	6.1	7.3	4.1
- Intermediate profession	6.9	5.5	9.2
- Employee	32.4	34.3	26.3
- Blue collar	22.9	26.7	14.2
- Without	10.0	6.1	2.0
Experience in the line of business			
- None	41.8	26.7	27.3
- From 1 year to less than 3 years	13.6	15.9	13.6
- From 3 years to less than 10 years	21.9	29.2	29.2
- 10 years and more	22.6	28.3	30.0
Education			
- Without	13.2	11.8	12.1
- Certificat d'Etudes Primaires	9.9	7.7	7.6
- Brevet d'Etudes du Premier Cycle	8.9	7.6	7.9
- Certificat d'Aptitude Professionnelle	36.1	41.2	27.6
- Baccalauréat Professionnel	9.9	10.1	9.7
- Baccalauréat Général	6.0	5.0	6.3
- Brevet de Technicien Supérieur	7.0	7.7	8.9
- One or two years of college educ.	2.7	2.4	4.3
- More than two years of college educ.	6.3	6.7	15.5
Entrepreneurs in the acquaintance			
- None	40.3	38.7	39.1
- In the family	37.0	38.6	39.3
- Among relatives	22.7	22.7	21.6
Motivation			
- Find a job again	35.2	17.8	4.9
- Be independent	41.5	55.0	52.2
- Business opportunity	23.6	15.7	23.6
- New idea or example of success	12.1	11.5	19.3
Previous start-up			
- No	87.6	88.7	71.6
- Yes	12.4	11.3	28.4
Market scope			
- Local	44.8	43.2	44.9
- Regional	38.9	40.6	34.7
- National	11.3	11.7	13.2
- Cross-border	0.6	1.4	1.3
- International	4.4	3.1	5.9

(to be followed)

Followed from Table 1: Characteristics of the Start-ups

%

Former occupation	Long-term unemployed	Short-term unemployed	Employed
Line of business			
- Hôtels, cafés, restaurants	8.9	6.1	7.0
- Services to households	11.7	10.0	16.6
- Food industry	2.6	2.5	2.1
- Other industries	13.6	15.4	12.5
- Construction	18.8	25.0	16.8
- Commerce	24.8	21.1	22.1
- Transports	6.8	6.7	5.9
- Services to firms	12.8	13.2	17.0
Location			
- Ile de France	8.7	7.1	11.0
- Champagne	2.5	3.0	2.6
- Picardie	3.3	3.2	3.0
- Haute Normandie	3.2	3.1	2.8
- Centre	3.1	3.7	3.0
- Basse Normandie	3.3	2.4	2.2
- Bourgogne	7.0	6.7	6.0
- Nord Pas de Calais	5.2	7.0	6.2
- Lorraine	4.6	5.3	5.8
- Alsace	2.3	2.9	3.8
- Franche Comté	2.2	2.7	2.3
- Loire	4.3	5.0	3.5
- Bretagne	4.1	4.1	3.4
- Poitou Charentes	8.1	7.1	6.5
- Aquitaine	4.7	5.5	4.1
- Midi Pyrénées	4.9	4.8	4.3
- Limousin	1.5	2.3	1.5
- Rhône Alpes	6.4	6.9	6.1
- Auvergne	3.0	3.3	2.5
- Languedoc Roussillon	5.2	3.9	3.3
- Provence-Alpes-Côte d'Azur et Corse	7.7	7.0	7.8
- Overseas departments and territories	4.7	2.9	8.3
Number of entrepreneurs	2781	4757	5966

Table 2: Initial capital and survival function for the firms that have not benefited from either a subsidy or a bank loan

	Long-term unemployed	Short-term unemployed	Employed
Initial capital			
<i>K</i> (1)	32.4	26.4	29.2
<i>K</i> (2)	19.6	19.5	15.3
<i>K</i> (3)	21.1	19.5	17.6
<i>K</i> (4)	16.9	21.5	20.4
<i>K</i> (5)	6.6	8.9	10.6
<i>K</i> (6)	3.4	4.2	6.9
Survival function			
<i>S</i> (1)	95.3	97.1	96.9
<i>S</i> (2)	85.5	86.8	91.1
<i>S</i> (3)	76.1	78.6	86.2
<i>S</i> (4)	68.2	72.0	81.1
<i>S</i> (5)	63.8	67.5	77.8
<i>S</i> (6)	60.3	65.3	76.1

S(*k*) : Probability to be still in operating at the end of the *k*-th semester after the firm creation.
K(*s*) : Capital interval *s* (see Figure 1).

Reading example: out of 100 firms created in the first semester of 1994, that have not benefited either from a subsidy or a bank loan, 60 are still operating 6 semesters after their creation for the long-term unemployed, 65 for the short-term unemployed and 76 for the employed. On the other hand, 3.4% of the firms created by long-term unemployed workers had an initial capital of more than 38100 Euros, versus 6.9% for the employed workers.

Table 3: Funding sources of the new firms

	Long-term unemployed	Short-term unemployed	Employed	Total
Neither subsidy nor loan	771 (28%)	945 (20%)	3942 (66%)	5658
Subsidy only	1302 (47%)	2270 (48%)	299 (5%)	3871
Loan only	115 (4%)	261 (5%)	1493 (25%)	1869
Subsidy and loan	593 (21%)	1281 (27%)	232 (4%)	2106
Total	2781 (100%)	4757 (100%)	5966 (100%)	13504

Table 4: The determinants of the initial capital

Left-hand variable : initial capital. Maximum likelihood estimation of the ordered logistic model. The detailed estimates are given in appendix 1. ++ positive and significant at the 5% level, + positive and significant at the 10% level, - □- negative and significant at the 5% level, - negative and significant at the 10% level .

	Long-term unemployed	Short-term unemployed	Employed
Number of associates (ref. None)			
- one	++	++	++
- two or more	++	++	++
Qualification (ref. Without)			
- Craftsman	0	++	+
- Entrepreneur	++	++	++
- Executive	++	++	+
- Foreman	++	++	0
- Intermediate profession	++	++	0
- Employee	++	++	0
- Blue collar	++	++	0
Experience in the line of business (ref. None)			
- From 1 year to less than 3 years	0	--	0
- From 3 years to less than 10 years	+	0	++
- 10 years and more	0	0	++
Highest degree (ref. No degree)			
- Certificat d'études primaires	0	+	+
- Brevet d'Etudes du Premier Cycle	++	++	++
- Certificat d'Aptitudes Professionnelles	++	++	++
- Baccalauréat Professionnel	++	++	++
- Baccalauréat Général	++	+	++
- Brevet de Technicien Supérieur	++	++	++
- One or two years of college education	0	0	0
- More than two years of college education	++	++	++
Entrepreneurs in the acquaintance (ref. No)			
- In the family	0	0	++
- Among relatives	0	0	0
Motivation (ref. Find a job again)			
- Be independent	+	++	++
- Business opportunity	0	++	++
- New idea or example of success	++	++	++
Previous start-up (ref. No)			
- Yes	++	0	++
Market scope (ref. National)			
- Local	0	0	0
- Regional	-	0	0
- Cross-borders	0	0	0
- International	0	0	0
Line of business (ref. Hotels, etc.)			
- Services for households	--	--	0
- Food industry	--	--	0
- Other industries	--	--	0
- Construction	--	--	--
- Commerce	--	--	--
- Transports	--	--	--
- Services for firms	--	--	--
21 location dummies (not reported)			

Table 5: Determinants of the funding sources

Left-hand variable : Type of funding source obtained. Maximum likelihood estimation of the multinomial logistic model. The reference funding is neither subsidy nor loan. The detailed estimates are given in appendix 2. ++ positive and significant at the 5% level, + positive and significant at the 10% level, - □- negative and significant at the 5% level, - negative and significant at the 10% level .

	Long-term unemployed			Short-term unemployed			Employed		
	Subsidy	Loan	Both	Subsidy	Loan	Both	Subsidy	Loan	Both
Number of associates (ref. None)									
- one	0	++	++	+	0	++	++	++	++
- two or more	--	++	0	--	0	0	0	+	0
Qualification (ref. Without)									
- Craftsman	0	0	0	0	0	0	0	+	0
- Entrepreneur	0	+	0	--	-	0	0	0	0
- Executive	++	0	++	++	0	++	0	0	+
- Foreman	++	+	++	++	0	++	0	0	+
- Intermediate profession	0	0	0	++	0	++	0	0	0
- Employee	++	0	++	++	0	++	0	0	0
- Blue collar	++	0	++	++	0	++	0	0	0
Experience in the line of business (ref. None)									
- From 1 year to less than 3 years	++	0	0	0	0	0	+	0	0
- From 3 years to less than 10 years	++	0	0	0	++	++	0	++	0
- 10 years and more	++	0	++	++	++	++	0	++	+
Highest degree (ref. No degree)									
- Certificat d'études primaires	0	0	0	++	0	++	0	++	0
- Brevet d'Etudes du Premier Cycle	0	0	0	++	0	++	0	++	+
- Certificat d'Aptitudes Professionnelles	++	+	++	++	0	++	0	++	++
- Baccalauréat Professionnel	++	++	++	++	++	++	0	++	++
- Baccalauréat Général	0	0	0	++	0	++	0	++	0
- Brevet de Technicien Supérieur	++	0	++	0	0	++	0	0	+
- One or two years of college educ.	0	0	0	0	0	0	0	+	0
- More than two years of college educ.	0	0	0	++	0	++	0	++	0
Entrepreneurs in the acquaintance (ref. No)									
- In the family	0	0	0	0	0	0	0	++	0
- Among relatives	0	0	0	0	0	0	+	0	0
Motivation (ref. Find a job again)									
- Be independent	0	++	++	++	++	++	--	+	0
- Business opportunity	0	0	0	++	++	++	0	0	0
- New idea or example of success	+	0	++	++	0	++	--	0	0
Previous start-up (ref. No)									
- Yes	--	0	0	--	0	--	--	0	0
Market scope (ref. National)									
- Local	+	+	++	++	++	++	0	++	0
- Regional	0	0	0	++	0	++	0	++	0
- Cross-borders	0	0	0	0	0	0	0	0	0
- International	0	0	0	0	0	0	0	0	+
Line of business (ref. Hotels, etc.)									
- Services for households	--	--	--	+	--	-	0	--	--
- Food industry	0	0	0	0	0	0	0	0	0
- Other industries	0	0	--	++	--	0	0	--	--
- Construction	0	--	--	+	--	--	0	--	--
- Commerce	0	--	--	0	--	--	0	--	--
- Transports	0	0	0	0	--	--	0	--	--
- Services for firms	0	--	--	++	--	--	0	--	--
21 location dummies (not reported)									

Table 6: Causal effect of the funding sources on the initial capital

This table reports the difference between the performance of a given funding source compared to the performance with neither a subsidy nor a loan. The detailed tables comparing all funding types two by two are given in the appendix 4.

$K(s)$: percentage of firms in the capital class s . $K(1)$ = less than 1524, $K(2)$ = 1524-3811, $K(3)$ = 3811-7622, $K(4)$ = 7622-15245, $K(5)$ = 15245-38112, $K(6)$ = more than 38112.

Treatment	Perf.	Difference of average performances (does not account for selection)			Causal effect on the treated ($c_{k,0}$)			Causal effect on the non treated ($\bar{c}_{k,0}$)		
		T	y	Long-term unemployed	Short-term unemployed	Employed	Long-term unemployed	Short-term unemployed	Employed	Long-term unemployed
Subsidy only	$K(1)$	-0.178 (0.020)	-0.136 (0.016)	-0.175 (0.020)	-0.180 (0.025)	-0.149 (0.021)	-0.166 (0.019)	-0.183 (0.021)	-0.127 (0.019)	-0.166 (0.026)
	$K(2)$	0.021 (0.018)	0.010 (0.015)	0.017 (0.023)	0.025 (0.023)	0.002 (0.022)	-0.018 (0.023)	0.021 (0.020)	-0.001 (0.019)	0.016 (0.030)
	$K(3)$	0.047 (0.019)	0.078 (0.016)	0.029 (0.024)	0.016 (0.023)	0.068 (0.019)	0.017 (0.025)	0.027 (0.023)	0.076 (0.020)	-0.005 (0.030)
	$K(4)$	0.085 (0.018)	0.029 (0.016)	0.114 (0.028)	0.096 (0.022)	0.042 (0.018)	0.128 (0.031)	0.087 (0.022)	0.013 (0.019)	0.130 (0.032)
	$K(5)$	0.034 (0.012)	0.026 (0.011)	0.025 (0.020)	0.043 (0.013)	0.035 (0.013)	0.037 (0.023)	0.055 (0.019)	0.043 (0.013)	0.029 (0.024)
	$K(6)$	0.008 (0.008)	-0.006 (0.008)	-0.009 (0.014)	0.001 (0.007)	0.003 (0.007)	0.002 (0.015)	-0.008 (0.010)	-0.004 (0.009)	-0.004 (0.020)
Bank loan only	$K(1)$	-0.263 (0.028)	-0.253 (0.016)	-0.234 (0.010)	-0.241 (0.022)	-0.224 (0.020)	-0.188 (0.017)	-0.285 (0.020)	-0.217 (0.020)	-0.254 (0.019)
	$K(2)$	-0.074 (0.034)	-0.064 (0.025)	-0.091 (0.009)	-0.104 (0.022)	-0.125 (0.020)	-0.087 (0.022)	-0.099 (0.023)	-0.114 (0.018)	-0.021 (0.037)
	$K(3)$	-0.055 (0.037)	-0.053 (0.025)	-0.066 (0.010)	-0.006 (0.026)	-0.030 (0.020)	-0.096 (0.021)	0.006 (0.032)	-0.044 (0.020)	-0.084 (0.034)
	$K(4)$	0.031 (0.040)	0.107 (0.032)	0.046 (0.013)	0.092 (0.029)	0.081 (0.026)	-0.038 (0.032)	0.097 (0.030)	0.098 (0.026)	0.003 (0.037)
	$K(5)$	0.134 (0.039)	0.137 (0.028)	0.122 (0.012)	0.139 (0.026)	0.188 (0.017)	0.124 (0.034)	0.152 (0.026)	0.160 (0.021)	0.115 (0.036)
	$K(6)$	0.227 (0.042)	0.126 (0.024)	0.222 (0.012)	0.120 (0.019)	0.110 (0.013)	0.286 (0.034)	0.129 (0.025)	0.117 (0.019)	0.241 (0.043)
Both	$K(1)$	-0.289 (0.019)	-0.225 (0.015)	-0.267 (0.013)	-0.186 (0.042)	-0.216 (0.017)	-0.221 (0.010)	-0.256 (0.040)	-0.255 (0.016)	-0.232 (0.010)
	$K(2)$	-0.110 (0.018)	-0.111 (0.015)	-0.085 (0.018)	-0.035 (0.044)	-0.042 (0.028)	-0.096 (0.009)	-0.008 (0.055)	-0.061 (0.031)	-0.082 (0.010)
	$K(3)$	-0.002 (0.022)	-0.037 (0.016)	-0.085 (0.019)	-0.097 (0.040)	-0.044 (0.033)	-0.061 (0.011)	-0.101 (0.044)	-0.043 (0.030)	-0.070 (0.012)
	$K(4)$	0.084 (0.022)	0.078 (0.018)	-0.036 (0.025)	-0.039 (0.049)	0.070 (0.037)	0.033 (0.015)	0.027 (0.055)	0.111 (0.043)	0.033 (0.016)
	$K(5)$	0.195 (0.020)	0.183 (0.016)	0.140 (0.029)	0.123 (0.045)	0.131 (0.029)	0.123 (0.013)	0.165 (0.062)	0.145 (0.032)	0.125 (0.015)
	$K(6)$	0.121 (0.016)	0.112 (0.012)	0.332 (0.032)	0.233 (0.054)	0.101 (0.025)	0.222 (0.015)	0.173 (0.048)	0.103 (0.030)	0.227 (0.015)

Table 7: Causal effect of the initial capital on the survival of the new firms

This table reports the difference between the performance associated with the capital class indicated and the lowest capital class (K(1): less than 1524 €). K(s) : capital class s. K(1) = less than 1524, K(2) = 1524-3811, K(3) = 3811-7622, K(4) = 7622-15245, K(5) = 15245-38112, K(6) = more than 38112. S(k) : probability to be still operating at the end of the k-th semester after the creation.

Treatment	Perf.	Difference of average performances (does not account for selection)			Causal effect on the treated ($c_{k,0}$)			Causal effect on the non treated ($\bar{c}_{k,0}$)		
		Long-term unemployed	Short-term unemployed	Employed	Long-term unemployed	Short-term unemployed	Employed	Long-term unemployed	Short-term unemployed	Employed
T	y									
K(2)	S(1)	-0.001 (0.031)	-0.067 (0.025)	-0.062 (0.020)	-0.004 (0.035)	-0.066 (0.027)	-0.058 (0.021)	-0.001 (0.031)	-0.059 (0.027)	-0.062 (0.021)
	S(2)	-0.013 (0.029)	-0.029 (0.023)	-0.042 (0.017)	-0.012 (0.036)	-0.019 (0.024)	-0.038 (0.017)	-0.015 (0.030)	-0.023 (0.023)	-0.039 (0.018)
	S(3)	-0.023 (0.024)	-0.020 (0.019)	-0.032 (0.015)	-0.027 (0.028)	-0.015 (0.018)	<i>-0.028 (0.016)</i>	-0.019 (0.028)	-0.015 (0.019)	<i>-0.027 (0.016)</i>
	S(4)	0.019 (0.018)	-0.012 (0.015)	-0.016 (0.011)	0.018 (0.022)	-0.010 (0.015)	-0.011 (0.012)	0.014 (0.018)	-0.012 (0.013)	-0.014 (0.012)
	S(5)	0.002 (0.012)	-0.002 (0.009)	-0.007 (0.006)	-0.001 (0.013)	-0.007 (0.011)	-0.006 (0.007)	-0.002 (0.011)	-0.005 (0.008)	-0.007 (0.007)
	S(6)	-0.002 (0.032)	0.085 (0.026)	0.054 (0.021)	0.001 (0.035)	0.085 (0.027)	0.047 (0.022)	-0.004 (0.032)	0.079 (0.026)	0.049 (0.023)
K(3)	S(1)	-0.030 (0.029)	-0.073 (0.024)	-0.087 (0.018)	-0.020 (0.033)	-0.071 (0.027)	-0.076 (0.018)	-0.010 (0.031)	-0.055 (0.026)	-0.069 (0.022)
	S(2)	-0.025 (0.027)	-0.056 (0.021)	-0.050 (0.016)	-0.010 (0.032)	-0.045 (0.021)	-0.036 (0.018)	0.001 (0.030)	<i>-0.037 (0.019)</i>	-0.032 (0.019)
	S(3)	-0.020 (0.023)	-0.025 (0.018)	-0.044 (0.014)	-0.021 (0.026)	-0.016 (0.017)	-0.036 (0.014)	-0.008 (0.025)	-0.011 (0.016)	-0.034 (0.016)
	S(4)	0.012 (0.017)	-0.030 (0.013)	-0.023 (0.010)	0.014 (0.017)	<i>-0.025 (0.013)</i>	<i>-0.017 (0.010)</i>	0.022 (0.020)	-0.017 (0.013)	<i>-0.019 (0.011)</i>
	S(5)	0.001 (0.011)	-0.011 (0.008)	<i>-0.011 (0.006)</i>	-0.002 (0.011)	<i>-0.016 (0.009)</i>	0.081 (0.018)	0.004 (0.013)	-0.011 (0.009)	-0.009 (0.007)
	S(6)	0.033 (0.030)	0.093 (0.025)	0.095 (0.019)	0.025 (0.034)	0.091 (0.026)	0.148 (0.020)	0.015 (0.031)	0.075 (0.026)	0.080 (0.023)
K(4)	S(1)	-0.100 (0.029)	-0.100 (0.023)	-0.144 (0.016)	-0.087 (0.027)	-0.095 (0.026)	-0.122 (0.017)	-0.114 (0.033)	-0.084 (0.023)	-0.132 (0.017)
	S(2)	-0.056 (0.027)	-0.057 (0.021)	-0.092 (0.014)	-0.032 (0.027)	<i>-0.044 (0.024)</i>	-0.070 (0.015)	-0.067 (0.030)	-0.040 (0.020)	-0.075 (0.016)
	S(3)	-0.047 (0.022)	<i>-0.028 (0.017)</i>	-0.063 (0.012)	-0.050 (0.025)	-0.017 (0.019)	-0.051 (0.013)	-0.031 (0.025)	-0.018 (0.015)	-0.051 (0.013)
	S(4)	-0.001 (0.016)	-0.032 (0.013)	-0.032 (0.009)	0.001 (0.018)	<i>-0.026 (0.015)</i>	-0.025 (0.009)	0.005 (0.016)	-0.031 (0.012)	-0.027 (0.010)
	S(5)	-0.001 (0.011)	-0.010 (0.008)	-0.010 (0.005)	-0.001 (0.012)	<i>-0.017 (0.011)</i>	-0.010 (0.006)	0.001 (0.012)	<i>-0.013 (0.007)</i>	-0.009 (0.007)
	S(6)	0.088 (0.030)	0.114 (0.023)	0.160 (0.017)	0.076 (0.029)	0.110 (0.026)	0.134 (0.017)	0.101 (0.034)	0.094 (0.023)	0.143 (0.018)
K(5)	S(1)	-0.144 (0.032)	-0.158 (0.024)	-0.147 (0.017)	-0.135 (0.046)	-0.147 (0.031)	-0.121 (0.019)	-0.187 (0.036)	-0.147 (0.029)	-0.113 (0.023)
	S(2)	-0.098 (0.029)	-0.095 (0.022)	-0.088 (0.016)	-0.087 (0.038)	-0.080 (0.027)	-0.063 (0.017)	-0.104 (0.037)	-0.082 (0.025)	-0.054 (0.022)
	S(3)	-0.060 (0.025)	-0.044 (0.018)	-0.056 (0.013)	-0.085 (0.037)	-0.032 (0.022)	-0.042 (0.015)	-0.070 (0.031)	-0.032 (0.021)	<i>-0.033 (0.017)</i>
	S(4)	0.001 (0.019)	-0.022 (0.015)	-0.023 (0.010)	-0.001 (0.023)	-0.018 (0.018)	-0.017 (0.013)	0.004 (0.028)	-0.015 (0.017)	-0.002 (0.013)
	S(5)	-0.009 (0.012)	-0.008 (0.009)	-0.005 (0.006)	-0.007 (0.016)	-0.018 (0.013)	-0.005 (0.008)	0.003 (0.018)	-0.022 (0.008)	-0.006 (0.007)
	S(6)	0.160 (0.033)	0.178 (0.025)	0.166 (0.018)	0.151 (0.049)	0.169 (0.032)	0.136 (0.020)	0.203 (0.038)	0.170 (0.030)	0.123 (0.022)
K(6)	S(1)	-0.246 (0.034)	-0.237 (0.026)	-0.192 (0.016)	-0.214 (0.049)	-0.215 (0.041)	-0.157 (0.022)	-0.230 (0.055)	-0.211 (0.040)	-0.172 (0.022)
	S(2)	-0.178 (0.031)	-0.156 (0.023)	-0.124 (0.015)	-0.157 (0.042)	-0.145 (0.037)	-0.089 (0.018)	-0.135 (0.053)	-0.126 (0.037)	-0.118 (0.019)
	S(3)	-0.092 (0.028)	-0.086 (0.019)	-0.079 (0.013)	-0.107 (0.043)	-0.094 (0.035)	-0.059 (0.017)	-0.031 (0.053)	-0.071 (0.032)	-0.072 (0.017)
	S(4)	-0.005 (0.023)	-0.064 (0.014)	-0.031 (0.010)	-0.002 (0.027)	-0.074 (0.029)	-0.023 (0.014)	0.071 (0.053)	-0.062 (0.020)	<i>-0.028 (0.015)</i>
	S(5)	0.004 (0.017)	-0.025 (0.008)	-0.001 (0.007)	-0.001 (0.026)	-0.044 (0.021)	-0.002 (0.010)	0.021 (0.032)	-0.031 (0.008)	0.002 (0.011)
	S(6)	0.284 (0.035)	0.268 (0.027)	0.213 (0.017)	0.252 (0.050)	0.245 (0.042)	0.176 (0.021)	0.288 (0.049)	0.245 (0.044)	0.198 (0.021)

Table 8: Causal effect of the funding sources on the survival of the new firms

This table reports the difference between the performance of a given funding source compared to the performance with neither a subsidy nor a loan.

The detailed tables comparing all funding types two by two are given in the appendix 5.

$K(s)$: percentage of firms in the capital class s . $K(1)$ = less than 1524, $K(2)$ = 1524-3811, $K(3)$ = 3811-7622, $K(4)$ = 7622-15245, $K(5)$ = 15245-38112, $K(6)$ = more than 38112.

Treatment	Perf.	Difference of average performances (does not account for selection)			Causal effect on the treated ($c_{k,0}$)			Causal effect on the non treated ($\bar{c}_{k,0}$)			
		T	y	Long-term unemployed	Short-term unemployed	Employed	Long-term unemployed	Short-term unemployed	Employed	Long-term unemployed	Short-term unemployed
Subsidy Alone	S(1)		0.011 (0.009)	-0.001 (0.006)	0.001 (0.010)	0.018 (0.011)	0.001 (0.008)	-0.008 (0.013)	0.009 (0.013)	-0.001 (0.008)	0.004 (0.011)
	S(2)		0.015 (0.016)	0.036 (0.013)	0.002 (0.017)	0.030 (0.019)	0.049 (0.016)	-0.002 (0.020)	0.016 (0.021)	0.040 (0.017)	0.011 (0.019)
	S(3)		0.005 (0.019)	0.041 (0.016)	-0.023 (0.022)	0.037 (0.025)	0.058 (0.023)	-0.025 (0.024)	0.004 (0.024)	0.051 (0.018)	-0.031 (0.026)
	S(4)		0.018 (0.021)	0.047 (0.017)	-0.008 (0.024)	0.055 (0.027)	0.075 (0.021)	-0.005 (0.027)	0.012 (0.027)	0.054 (0.020)	-0.041 (0.028)
	S(5)		0.014 (0.022)	0.050 (0.018)	0.005 (0.025)	0.057 (0.027)	0.072 (0.022)	0.011 (0.026)	0.015 (0.028)	0.043 (0.022)	-0.023 (0.029)
	S(6)		0.019 (0.022)	0.047 (0.018)	-0.009 (0.026)	0.072 (0.028)	0.066 (0.022)	-0.001 (0.028)	0.025 (0.030)	<i>0.040 (0.023)</i>	-0.028 (0.030)
Bank loan Only	S(1)		0.021 (0.017)	0.009 (0.010)	0.015 (0.004)	0.022 (0.024)	-0.001 (0.012)	0.014 (0.004)	0.007 (0.034)	0.007 (0.012)	0.016 (0.005)
	S(2)		0.067 (0.028)	0.059 (0.020)	0.042 (0.007)	0.055 (0.042)	0.046 (0.022)	0.043 (0.009)	0.040 (0.053)	<i>0.050 (0.027)</i>	0.040 (0.009)
	S(3)		0.108 (0.035)	0.057 (0.026)	0.061 (0.009)	0.106 (0.049)	0.044 (0.033)	0.061 (0.010)	0.082 (0.061)	0.013 (0.036)	0.056 (0.010)
	S(4)		0.152 (0.039)	0.066 (0.029)	0.074 (0.010)	0.112 (0.055)	0.043 (0.036)	0.076 (0.011)	<i>0.119 (0.071)</i>	0.016 (0.040)	0.069 (0.012)
	S(5)		0.162 (0.041)	0.083 (0.031)	0.087 (0.011)	<i>0.099 (0.056)</i>	0.060 (0.040)	0.087 (0.011)	0.096 (0.072)	0.031 (0.042)	0.077 (0.013)
	S(6)		0.127 (0.045)	0.098 (0.031)	0.087 (0.011)	0.078 (0.063)	<i>0.080 (0.042)</i>	0.089 (0.012)	0.046 (0.079)	0.050 (0.042)	0.079 (0.013)
Both	S(1)		0.011 (0.011)	0.007 (0.007)	0.005 (0.011)	0.004 (0.014)	0.012 (0.011)	-0.001 (0.014)	0.005 (0.015)	0.004 (0.008)	0.007 (0.019)
	S(2)		0.046 (0.018)	0.062 (0.013)	<i>0.029 (0.016)</i>	0.035 (0.024)	0.072 (0.022)	0.037 (0.018)	0.035 (0.024)	0.054 (0.018)	<i>0.045 (0.024)</i>
	S(3)		0.072 (0.022)	0.091 (0.016)	0.047 (0.020)	0.061 (0.031)	0.108 (0.024)	0.047 (0.022)	0.071 (0.028)	0.078 (0.024)	<i>0.052 (0.031)</i>
	S(4)		0.107 (0.024)	0.119 (0.018)	0.073 (0.022)	0.101 (0.033)	0.132 (0.026)	0.069 (0.025)	0.111 (0.029)	0.107 (0.023)	0.081 (0.032)
	S(5)		0.090 (0.025)	0.132 (0.019)	0.071 (0.024)	0.102 (0.033)	0.142 (0.026)	0.082 (0.028)	0.105 (0.030)	0.110 (0.024)	0.095 (0.032)
	S(6)		0.102 (0.026)	0.138 (0.019)	0.066 (0.026)	0.127 (0.034)	0.146 (0.026)	0.080 (0.029)	0.114 (0.033)	0.117 (0.025)	0.101 (0.032)

Table 9: Aggregated effects of subsidies and bank loans on the longevity of the new firms

The table reports the number of firms still in activity after 3 year that would have failed at this date if they did not get the funding source indicated.

	Long-term unemployed	Short-term unemployed	Employed	Total
Effects of fundings :				
Subsidy only	312 (65%)	499 (42%)	0	811 (36%)
Bank loan only	0	70 (6%)	443 (88%)	513 (23%)
Both	251 (45%)	623 (52%)	62 (22%)	936 (41%)
Sum of all effects	563 (100%)	1192 (100%)	505 (100%)	2260 (100%)
Number of recipients :				
Subsidy only	4340 (65%)	7567 (60%)	997 (15%)	12904 (49%)
Bank loan only	383 (5%)	870 (6%)	4977 (74%)	6230 (24%)
Both	1977 (30%)	4270 (34%)	773 (11%)	7020 (27%)
Total number of recipients	6700 (100%)	12707 (100%)	6747 (100%)	26154 (100%)
Ratio Effects/ Recipients :				
Subsidy only	7.2%	6.6%	0	6.3%
Bank loan only	0	8.0%	8.9%	8.2%
Both	12.7%	14.6%	8.0%	13.3%
Weighted average	8.4%	9.4%	7.5	8.6%
Effects of fundings* :				
Subsidies	437 (78%)	810 (68%)	31 (6%)	1279 (57%)
Bank loans	126 (22%)	382 (32%)	474 (94%)	981 (43%)
Total	563 (100%)	1192 (100%)	505 (100%)	2260 (100%)
Number of recipients* :				
Subsidies	5328 (80%)	9702 (76%)	1384 (21%)	16414 (63%)
Bank loans	1372 (20%)	3005 (24%)	5364 (79%)	9740 (37%)
Total number of recipients	6700 (100%)	12707 (100%)	6747 (100%)	26154 (100%)
Ratio Effects/ Recipients :* :				
Subsidies	8.2%	8.4%	2.2%	7.8%
Bank loans	9.2%	12.7%	8.8%	10.1%
Weighted average	8.4%	9.4%	7.5%	8.6%

* We obtain this decomposition of the performances between the subsidies and the bank loans by assuming their joint effect is equally shared by subsidies and loans. By definition, this convention has no effect on the overall totals or ratios.

Appendix 1: The determinants of initial capital

The initial capital is given by interval in the SINE survey. In the original questionnaire the amounts were given in French francs so that we have converted them at the official rate (1€ = 6.55957 FRF). For the purpose of estimation, let K^* denote the exact value of capital. We observe instead an ordered qualitative variable defined by:

$$K = \begin{cases} 1 & \text{if } K^* < a_1 \\ 2 & \text{if } a_1 \leq K^* < a_2 \\ 3 & \text{if } a_2 \leq K^* < a_3 \\ 4 & \text{if } a_3 \leq K^* < a_4 \\ 5 & \text{if } a_4 \leq K^* < a_5 \\ 6 & \text{if } K^* \geq a_5 \end{cases}$$

where the coefficients a_k denote the known bounds of the intervals. The determinants of the initial capital are denoted X and we can write our model as:

$$K_i^* = X_i b + u_i,$$

where u_i is a logistic disturbance. The probability that the capital K^* belongs to the interval k is therefore equal to:

$$P_{k,i} = \Pr[a_{k-1} \leq K_i^* < a_k] = \Pr[a_{k-1} - X_i b \leq u_i < a_k - X_i b] = F(a_k - X_i b) - F(a_{k-1} - X_i b), \quad 2 \leq k \leq 5$$

$$P_{1,i} = \Pr[K_i^* < a_1] = F(a_1 - X_i b)$$

$$P_{5,i} = \Pr[K_i^* \geq a_5] = 1 - F(a_5 - X_i b)$$

where F is the distribution function of the logistic distribution, $F(u) = 1/(1 + \exp(-u))$. The log-likelihood of the model is equal to:

$$\ell(K|X;b) = \sum_{i=1}^n \sum_{k=1}^5 \mathbf{1}_{(K_i=k)} \ln(P_{ki}) \quad \text{with} \quad \mathbf{1}_{(K_i=k)} = \begin{cases} 1 & \text{if } K_i = k \\ 0 & \text{otherwise} \end{cases}$$

The estimation of this model is made by maximum likelihood, using the logistic procedure of SAS.

Table A.1: Determinants of the initial capital

Maximum likelihood estimation of the ordered logit model. The asymptotic standard errors are given between parentheses. The situation of reference is an initial capital lower than 1524 Euros. The estimations have been performed separately on the three populations.

	Long-term unemployed	Short-term unemployed	Employed
Intercepts	-3.30 (0.27)	-3.23 (0.25)	-2.51 (0.24)
	-0.93 (0.26)	-1.80 (0.24)	-1.54 (0.24)
	-0.66 (0.26)	-0.53 (0.24)	-0.50 (0.24)
	0.41 (0.26)	0.49 (0.24)	0.22 (0.24)
	1.47 (0.26)	1.61 (0.24)	0.93 (0.24)
Number of associates (ref. None)			
- one	0.62 (0.08)	0.45 (0.06)	0.60 (0.06)
- two or more	0.92 (0.18)	0.87 (0.11)	0.65 (0.08)
Qualification (ref. Without)			
- Craftsman	0.37 (0.23)	0.63 (0.19)	0.31 (0.18)
- Entrepreneur	1.63 (0.33)	0.99 (0.24)	0.48 (0.19)
- Executive	1.06 (0.15)	1.36 (0.13)	0.30 (0.18)
- Foreman	0.78 (0.18)	0.82 (0.15)	0.28 (0.20)
- Intermediate profession	0.64 (0.17)	0.53 (0.16)	-0.15 (0.18)
- Employee	0.31 (0.13)	0.32 (0.12)	-0.04 (0.17)
- Blue collar	0.30 (0.13)	0.24 (0.12)	-0.21 (0.18)
Experience in the line of business (ref. None)			
- From 1 year to less than 3 years	-0.04 (0.11)	-0.18 (0.08)	-0.01 (0.08)
- From 3 years to less than 10 years	0.16 (0.09)	-0.09 (0.07)	0.15 (0.06)
- 10 years and more	0.12 (0.09)	0.10 (0.08)	0.17 (0.06)
Highest degree (ref. No degree)			
- Certificat d'études primaires	0.14 (0.15)	0.20 (0.12)	0.19 (0.11)
- Brevet d'Etudes du Premier Cycle	0.32 (0.15)	0.25 (0.12)	0.33 (0.11)
- Certificat d'Aptitudes Professionnelles	0.37 (0.11)	0.19 (0.09)	0.27 (0.08)
- Baccalauréat Professionnel	0.43 (0.15)	0.38 (0.11)	0.36 (0.10)
- Baccalauréat Général	0.54 (0.17)	0.24 (0.14)	0.39 (0.12)
- Brevet de Technicien Supérieur	0.48 (0.17)	0.40 (0.13)	0.45 (0.11)
- One or two years of college educ.	0.23 (0.24)	0.18 (0.19)	0.21 (0.14)
- More than two years of college educ.	0.63 (0.18)	0.49 (0.14)	0.36 (0.10)
Entrepreneurs in the acquaintance (ref. No)			
- In the family	0.01 (0.08)	0.08 (0.06)	0.18 (0.05)
- Among relatives	-0.05 (0.09)	0.03 (0.07)	0.08 (0.06)
Motivation (ref. Find a job again)			
- Be independent	0.14 (0.08)	0.48 (0.07)	0.67 (0.11)
- Business opportunity	0.13 (0.12)	0.52 (0.09)	0.53 (0.12)
- New idea or example of success	0.26 (0.12)	0.41 (0.10)	0.57 (0.12)
Previous start-up (ref. No)			
- Yes	0.29 (0.11)	0.05 (0.09)	0.26 (0.06)
Market scope (ref. National)			
- Local	0.04 (0.12)	0.09 (0.09)	0.05 (0.08)
- Regional	-0.22 (0.12)	-0.07 (0.09)	-0.01 (0.08)
- Cross-borders	0.06 (0.46)	-0.27 (0.23)	-0.17 (0.22)
- International	-0.28 (0.19)	-0.03 (0.17)	0.18 (0.12)
Line of business (ref. Hotels, Cafés,...)			
- Services for households	-1.71 (0.16)	-1.34 (0.14)	-1.57 (0.11)
- Food industry	-0.56 (0.24)	-0.86 (0.20)	-0.40 (0.18)
- Other industries	-1.53 (0.16)	-0.91 (0.13)	-0.79 (0.11)
- Construction	-1.84 (0.15)	-1.43 (0.13)	-1.34 (0.11)
- Commerce	-1.37 (0.14)	-1.08 (0.13)	-1.01 (0.10)
- Transports	-0.62 (0.18)	-0.59 (0.15)	-0.65 (0.13)
- Services for firms	-2.05 (0.16)	-1.72 (0.14)	-1.34 (0.11)
21 location dummies (not reported)			

Appendix 2: Determinants of the funding sources

The binary variables of subsidy and bank loan define a funding structure than can take four values:

1. Neither subsidy nor loan, that is the situation of reference (denoted 0);
2. Subsidy only (denoted A);
3. Bank loan only (denoted B);
4. Subsidy and bank loan (denoted AB).

The standard representation of this type of variable is the multinomial logit mode (see Maddala, 1983; Gouriéroux, 2000). In this model, we consider that the funding sources that the entrepreneur i gets results from a drawing into a multinomial distribution with probabilities $(p_{0i}, p_{Ai}, p_{Bi}, p_{ABi})$. These probabilities depend on the explanative variables of the model through the following logistic function:

$$p_{ki} = \frac{\exp(X_i b_k)}{\sum_{j \in K} \exp(X_i b_j)}, \quad k \in K, \quad i = 1, \dots, n, \quad K = \{0, A, B, AB\}.$$

The log-likelihood of our sample if therefore equal to:

$$\ell(T|X; b) = \sum_{i=1}^n \sum_{k \in K} \mathbf{1}_{T_i=k} \ln(p_{ki}) \quad \text{with } b = \{b_k, k \in K\} \text{ and } \mathbf{1}_{T_i=k} = \begin{cases} 1 & \text{if } T_i = k \\ 0 & \text{otherwise} \end{cases}.$$

The maximum of this likelihood is obtained from a Newton-Raphson algorithm. The estimation has been made with SAS-IML through an improved version of the %multino macro-command (see Duguet, 1999). The asymptotic standard errors are evaluated from the second order derivatives.

The results are presented in the Tables A.2 to A.4, they summarize the screening processes associated to the attribution of subsidies and of the bank loans. They also allow to estimate the probability to get each type of funding for all the firms. The situation of reference is with neither a subsidy nor a loan.

Table A.2: Funding sources of the long-term unemployed

Sample of 2781 entrepreneurs that were long-term unemployed before they started their business. Maximum likelihood estimates of the multinomial logit model. The asymptotic standard errors are given between parentheses. The situation of reference is “with neither a subsidy nor a loan”.

Funding sources:	Subsidy only	Bank loan only	Both
Intercept	-2.86 (0.37)	-4.46 (0.98)	-4.41 (0.58)
Number of associates (ref. None)			
- one	0.08 (0.13)	0.73 (0.31)	0.41 (0.15)
- two or more	-0.83 (0.27)	1.16 (0.53)	-0.06 (0.30)
Qualification (ref. Without)			
- Craftsman	-0.20 (0.34)	0.82 (0.76)	0.08 (0.43)
- Entrepreneur	-0.20 (0.50)	<i>1.63 (0.87)</i>	0.57 (0.54)
- Executive	0.75 (0.21)	0.85 (0.63)	0.93 (0.27)
- Foreman	1.08 (0.29)	<i>1.33 (0.78)</i>	1.24 (0.34)
- Intermediate profession	0.27 (0.24)	0.71 (0.79)	0.21 (0.31)
- Employee	0.67 (0.17)	0.35 (0.57)	0.66 (0.22)
- Blue collar	0.87 (0.19)	0.78 (0.58)	0.78 (0.24)
Experience in the line of business (ref. None)			
- From 1 year to less than 3 years	0.35 (0.15)	0.12 (0.40)	0.32 (0.19)
- From 3 years to less than 10 years	0.30 (0.14)	0.01 (0.35)	0.36 (0.17)
- 10 years and more	0.36 (0.14)	-0.21 (0.38)	0.62 (0.18)
Highest degree (ref. No degree)			
- Certificat d'études primaires	0.18 (0.21)	0.82 (0.64)	0.12 (0.26)
- Brevet d'Etudes du Premier Cycle	0.31 (0.21)	0.07 (0.75)	0.30 (0.27)
- Certificat d'Aptitudes Professionnelles	0.69 (0.16)	<i>1.02 (0.56)</i>	0.82 (0.20)
- Baccalauréat Professionnel	0.84 (0.22)	1.32 (0.66)	0.65 (0.27)
- Baccalauréat Général	0.20 (0.24)	0.86 (0.72)	0.41 (0.30)
- Brevet de Technicien Supérieur	0.55 (0.24)	0.67 (0.70)	0.75 (0.30)
- One or two years of college education	0.50 (0.34)	0.73 (0.99)	0.34 (0.43)
- More than two years of college education	0.22 (0.25)	0.60 (0.76)	0.23 (0.32)
Entrepreneurs in the acquaintance (ref. No)			
- In the family	0.06 (0.11)	0.20 (0.33)	0.07 (0.14)
- Among relatives	0.24 (0.14)	0.28 (0.36)	0.06 (0.17)
Motivation (ref. Find a job again)			
- Be independent	0.20 (0.12)	0.60 (0.30)	0.49 (0.14)
- Business opportunity	0.15 (0.17)	-0.30 (0.52)	0.03 (0.22)
- New idea or example of success	<i>0.31 (0.17)</i>	-0.72 (0.65)	0.54 (0.20)
Previous start-up (ref. No)			
- Yes	-0.41 (0.16)	-0.09 (0.37)	-0.20 (0.20)
Market scope (ref. National)			
- Local	0.35 (0.17)	<i>0.83 (0.49)</i>	1.08 (0.23)
- Regional	0.08 (0.16)	0.49 (0.46)	0.33 (0.23)
- Cross-borders	0.35 (0.71)	0.90 (1.19)	-1.01 (1.28)
- International	-0.27 (0.27)	-0.59 (0.79)	-0.06 (0.34)
Line of business (ref. Hotels, Cafés,...)			
- Services for households	-0.63 (0.25)	-0.97 (0.52)	-1.20 (0.26)
- Food industry	0.20 (0.46)	0.52 (0.69)	0.01 (0.48)
- Other industries	0.24 (0.25)	-0.70 (0.53)	-0.64 (0.28)
- Construction	-0.12 (0.23)	-1.95 (0.62)	-1.45 (0.27)
- Commerce	-0.04 (0.22)	-1.31 (0.47)	-1.16 (0.25)
- Transports	-0.34 (0.28)	0.23 (0.53)	-0.27 (0.30)
- Services for firms	-0.37 (0.24)	-1.75 (0.63)	-1.81 (0.29)
21 location dummies (not reported)			

Table A.3: Funding sources of the short-term unemployed

Sample of 4757 entrepreneurs that were short-term unemployed before they started their business. Maximum likelihood estimates of the multinomial logit model. The asymptotic standard errors are given between parentheses. The situation of reference is "with neither a subsidy nor a loan".

Funding source:	Subsidy only	Bank loan only	Both
Intercept	-3.82 (0.38)	-2.20 (0.54)	-5.36 (0.55)
Number of associates (ref. None)			
- one	0.21 (0.11)	0.32 (0.20)	0.55 (0.12)
- two or more	-0.42 (0.16)	0.24 (0.28)	-0.19 (0.19)
Qualification (ref. Without)			
- Craftsman	-0.35 (0.28)	-0.20 (0.41)	0.02 (0.35)
- Entrepreneur	-0.82 (0.34)	-1.32 (0.70)	-0.72 (0.48)
- Executive	1.18 (0.20)	-0.14 (0.34)	1.34 (0.25)
- Foreman	1.34 (0.24)	-0.30 (0.43)	1.57 (0.29)
- Intermediate profession	1.53 (0.25)	0.07 (0.43)	1.51 (0.30)
- Employee	1.25 (0.17)	-0.40 (0.27)	1.32 (0.22)
- Blue collar	1.16 (0.18)	-0.03 (0.29)	1.22 (0.23)
Experience in the line of business (ref. None)			
- From 1 year to less than 3 years	0.12 (0.13)	0.27 (0.25)	-0.03 (0.15)
- From 3 years to less than 10 years	0.33 (0.12)	0.68 (0.22)	0.44 (0.13)
- 10 years and more	0.37 (0.13)	0.52 (0.24)	0.76 (0.14)
Highest degree (ref. No degree)			
- Certificat d'études primaires	0.42 (0.19)	0.09 (0.37)	0.94 (0.22)
- Brevet d'Etudes du Premier Cycle	0.47 (0.19)	0.46 (0.33)	0.79 (0.22)
- Certificat d'Aptitudes Professionnelles	0.58 (0.13)	0.18 (0.26)	0.95 (0.16)
- Baccalauréat Professionnel	0.77 (0.18)	0.66 (0.33)	1.11 (0.21)
- Baccalauréat Général	0.49 (0.22)	0.33 (0.42)	0.74 (0.26)
- Brevet de Technicien Supérieur	0.21 (0.19)	0.44 (0.35)	0.50 (0.23)
- One or two years of college education	0.05 (0.28)	0.19 (0.51)	0.11 (0.35)
- More than two years of college education	0.52 (0.21)	0.02 (0.41)	0.71 (0.26)
Entrepreneurs in the acquaintance (ref. No)			
- In the family	0.02 (0.10)	0.21 (0.18)	0.18 (0.11)
- Among relatives	0.17 (0.11)	0.01 (0.22)	0.10 (0.13)
Motivation (ref. Find a job again)			
- Be independent	0.36 (0.11)	0.76 (0.24)	0.68 (0.13)
- Business opportunity	0.30 (0.14)	0.77 (0.29)	0.62 (0.16)
- New idea or example of success	0.42 (0.16)	0.45 (0.32)	0.65 (0.19)
Previous start-up (ref. No)			
- Yes	-0.42 (0.14)	-0.03 (0.25)	-0.75 (0.17)
Market scope (ref. National)			
- Local	0.66 (0.14)	0.61 (0.28)	0.90 (0.16)
- Regional	0.44 (0.13)	0.30 (0.27)	0.55 (0.16)
- Cross-borders	-0.46 (0.36)	0.60 (0.54)	0.35 (0.36)
- International	0.11 (0.25)	-0.07 (0.47)	-0.16 (0.30)
Line of business (ref. Hotels, Cafés,...)			
- Services for households	0.40 (0.23)	-1.03 (0.33)	-0.44 (0.24)
- Food industry	0.54 (0.36)	-0.56 (0.51)	0.04 (0.36)
- Other industries	0.77 (0.22)	-1.12 (0.33)	-0.06 (0.23)
- Construction	0.41 (0.21)	-1.60 (0.33)	-0.75 (0.22)
- Commerce	0.29 (0.21)	-1.25 (0.30)	-0.65 (0.21)
- Transports	-0.10 (0.24)	-0.99 (0.34)	-0.65 (0.24)
- Services for firms	0.47 (0.22)	-2.05 (0.39)	-1.26 (0.24)
21 location dummies (not reported)			

Table A.4: Funding sources of the employed

Sample of 5966 entrepreneurs that were employed before they started their business. Maximum likelihood estimates of the multinomial logit model. The asymptotic standard errors are given between parentheses. The situation of reference is "with neither a subsidy nor a loan".

Funding source:	Subsidy only	Bank loan only	Both
Intercept	-4.22 (0.79)	-2.94 (0.37)	-6.35 (1.51)
Number of associates (ref. None)			
- one	0.37 (0.15)	0.60 (0.07)	0.63 (0.18)
- two or more	0.12 (0.23)	0.21 (0.11)	-0.01 (0.28)
Qualification (ref. Without)			
- Craftsman	-0.62 (0.54)	0.49 (0.26)	1.75 (1.14)
- Entrepreneur	-0.08 (0.56)	0.30 (0.28)	1.40 (1.16)
- Executive	0.45 (0.52)	0.21 (0.26)	2.10 (1.13)
- Foreman	0.84 (0.55)	0.45 (0.30)	1.92 (1.14)
- Intermediate profession	-0.43 (0.58)	0.14 (0.27)	1.35 (1.15)
- Employee	0.07 (0.50)	0.32 (0.26)	1.51 (1.11)
- Blue collar	0.20 (0.51)	0.43 (0.27)	1.71 (1.12)
Experience in the line of business (ref. Non)			
- From 1 year to less than 3 years	0.37 (0.22)	0.13 (0.11)	0.12 (0.28)
- From 3 years to less than 10 years	0.13 (0.20)	0.38 (0.09)	0.02 (0.23)
- 10 years and more	0.21 (0.19)	0.36 (0.09)	0.40 (0.21)
Highest degree (ref. No degree)			
- Certificat d'études primaires	-0.11 (0.33)	0.33 (0.16)	0.40 (0.43)
- Brevet d'Etudes du Premier Cycle	0.15 (0.32)	0.41 (0.16)	0.77 (0.40)
- Certificat d'Aptitudes Professionnelles	0.21 (0.24)	0.67 (0.12)	0.87 (0.32)
- Baccalauréat Professionnel	0.23 (0.30)	0.56 (0.15)	0.91 (0.39)
- Baccalauréat Général	-0.51 (0.42)	0.39 (0.17)	0.74 (0.45)
- Brevet de Technicien Supérieur	0.10 (0.30)	0.25 (0.16)	0.74 (0.41)
- One or two years of college education	-0.61 (0.45)	0.33 (0.19)	-0.44 (0.74)
- More than two years of college education	-0.32 (0.31)	0.56 (0.14)	0.32 (0.43)
Entrepreneurs in the acquaintance (ref. No)			
- In the family	0.22 (0.16)	0.19 (0.07)	-0.24 (0.18)
- Among relatives	0.28 (0.17)	-0.03 (0.09)	-0.06 (0.21)
Motivation (ref. Find a job again)			
- Be independent	-0.66 (0.26)	0.31 (0.17)	0.77 (0.53)
- Business opportunity	-0.38 (0.28)	0.09 (0.18)	0.52 (0.56)
- New idea or example of success	-0.98 (0.31)	0.02 (0.18)	0.76 (0.56)
Previous start-up (ref. No)			
- Yes	-0.67 (0.21)	-0.11 (0.09)	-0.53 (0.24)
Market scope (ref. National)			
- Local	0.13 (0.22)	0.60 (0.11)	0.18 (0.28)
- Regional	0.08 (0.22)	0.32 (0.11)	0.17 (0.27)
- Cross-borders	0.04 (0.61)	-0.01 (0.32)	-0.38 (0.83)
- International	-0.21 (0.40)	-0.14 (0.18)	0.61 (0.36)
Line of business (ref. Hotels, Cafés,...)			
- Services for households	-0.45 (0.40)	-0.90 (0.14)	-2.26 (0.36)
- Food industry	0.13 (0.62)	-0.07 (0.23)	-0.29 (0.44)
- Other industries	0.08 (0.39)	-0.83 (0.15)	-1.04 (0.28)
- Construction	0.26 (0.38)	-1.17 (0.15)	-0.87 (0.33)
- Commerce	-0.20 (0.37)	-0.93 (0.14)	-2.21 (0.30)
- Transports	-0.04 (0.44)	-0.34 (0.17)	-0.97 (0.36)
- Services for firms	-0.13 (0.39)	-1.23 (0.15)	-2.73 (0.38)
21 location dummies (not reported)			

Appendix 3: Common supports used for the matching

The matching are made on the common support of the propensity score defined by $\Pr[T = k]/(\Pr[T = k] + \Pr[T = s])$, for a comparison of treatments k and s . The estimation of the probabilities is given in the appendices 1 and 2. We define the common support by the 1st and the 99th percentiles of the propensity score distribution. The first figure in the table indicates the number of firms that are available for the comparison before to take the common support. The second figure indicate the percentage of these firms that are in the common support and therefore that have been used to compute the kernel estimators.

Table A.5: Number of firms available for the matching on the initial capital

All the comparisons are made with the group of firms that have less then 1524 Euros (denoted $K(1)$).

T	Long-term unemployed	Short-term unemployed	Employed
$K(2)$	966 - 97.7%	1385 - 97.6%	2048 - 97.2%
$K(3)$	1109 - 95.0%	1637 - 97.1%	2217 - 96.5%
$K(4)$	1101 - 94.4%	1811 - 95.3%	2595 - 95.3%
$K(5)$	827 - 87.7%	1348 - 91.4%	2133 - 91.9%
$K(6)$	650 - 90.9%	960 - 87.0%	2101 - 90.2%

Table A.6: Number of firms available for the matching on the funding sources

$T = k$	$T = s$	Long-term unemployed	Short-term unemployed	Employed
Subsidy only	Neither subsidy Nor bank loan	2073 - 94.5%	3215 - 93.2%	4241 - 91.5%
	Bank Loan only	1895 - 90.8%	3551 - 94.7%	531 - 84.6%
	Both	1417 - 84.3%	2531 - 92.7%	1792 - 89.7%
Bank loan Only	Neither subsidy Nor bank loan	1364 - 85.6%	2226 - 86.1%	4174 - 91.7%
	Both	708 - 91.5%	1542 - 91.8%	1725 - 90.6%
Both	Neither subsidy Nor bank loan	886 - 85.8%	1206 - 91.8%	5435 - 95.2%

Appendix 4: Causal effects of subsidies and loans on the initial capital

Table A.7: Initial capital of the long-term unemployed

$K(s)$: percentage of firms in the capital class s .

			Difference of means	Causal effect (kernel)	
$T = k$	$T = s$	y	$E(y(k) T = k) - E(y(s) T = s)$	$E(y(k) - y(s) T = k)$	$E(y(k) - y(s) T = s)$
Subsidy only	Neither subsidy nor bank loan	$K(1)$	-0.178 (0.020)	-0.180 (0.025)	-0.183 (0.021)
		$K(2)$	0.021 (0.018)	0.025 (0.023)	0.021 (0.020)
		$K(3)$	0.047 (0.019)	0.016 (0.023)	0.027 (0.023)
		$K(4)$	0.085 (0.018)	0.096 (0.022)	0.087 (0.022)
		$K(5)$	0.034 (0.012)	0.043 (0.013)	0.055 (0.019)
		$K(6)$	0.008 (0.008)	0.001 (0.007)	-0.008 (0.010)
	Loan only	$K(1)$	0.085 (0.024)	0.090 (0.013)	0.112 (0.013)
		$K(2)$	0.095 (0.033)	0.120 (0.019)	0.139 (0.016)
		$K(3)$	0.102 (0.036)	0.027 (0.025)	0.034 (0.026)
		$K(4)$	0.053 (0.039)	0.004 (0.024)	-0.033 (0.026)
		$K(5)$	-0.100 (0.038)	-0.120 (0.021)	-0.148 (0.022)
		$K(6)$	-0.235 (0.041)	-0.122 (0.017)	-0.103 (0.017)
	Both	$K(1)$	0.111 (0.012)	0.053 (0.032)	0.086 (0.029)
		$K(2)$	0.131 (0.016)	0.059 (0.042)	0.046 (0.056)
		$K(3)$	0.049 (0.021)	0.051 (0.043)	0.065 (0.053)
		$K(4)$	0.001 (0.022)	0.102 (0.040)	0.056 (0.058)
		$K(5)$	-0.162 (0.020)	-0.043 (0.050)	-0.107 (0.053)
		$K(6)$	-0.129 (0.016)	-0.223 (0.052)	-0.147 (0.041)
Bank loan only	Neither subsidy nor bank loan	$K(1)$	-0.263 (0.028)	-0.241 (0.022)	-0.285 (0.020)
		$K(2)$	-0.074 (0.034)	-0.104 (0.022)	-0.099 (0.023)
		$K(3)$	-0.055 (0.037)	-0.006 (0.026)	0.006 (0.032)
		$K(4)$	0.031 (0.040)	0.092 (0.029)	0.097 (0.030)
		$K(5)$	0.134 (0.039)	0.139 (0.026)	0.152 (0.026)
		$K(6)$	0.227 (0.042)	0.120 (0.019)	0.129 (0.025)
	Both	$K(1)$	0.025 (0.024)	0.035 (0.024)	0.025 (0.030)
		$K(2)$	0.036 (0.033)	0.045 (0.041)	0.064 (0.055)
		$K(3)$	-0.053 (0.038)	-0.011 (0.048)	-0.013 (0.050)
		$K(4)$	-0.053 (0.042)	-0.035 (0.047)	-0.077 (0.047)
		$K(5)$	-0.061 (0.042)	-0.073 (0.049)	-0.087 (0.043)
		$K(6)$	0.106 (0.044)	0.040 (0.054)	0.087 (0.055)
Both	Neither subsidy nor bank loan	$K(1)$	-0.289 (0.019)	-0.186 (0.042)	-0.256 (0.040)
		$K(2)$	-0.110 (0.018)	-0.035 (0.044)	-0.008 (0.055)
		$K(3)$	-0.002 (0.022)	-0.097 (0.040)	-0.101 (0.044)
		$K(4)$	0.084 (0.022)	-0.039 (0.049)	0.027 (0.055)
		$K(5)$	0.195 (0.020)	0.123 (0.045)	0.165 (0.062)
		$K(6)$	0.121 (0.016)	0.233 (0.054)	0.173 (0.048)

Table A.8: Initial capital of the short-term unemployed

$K(s)$: percentage of firms in the capital class s .

T = k	T = s	Y	Difference of means	Causal effect (kernel)	
			$E(y(k) T = k) - E(y(s) T = s)$	$E(y(k) - y(s) T = k)$	$E(y(k) - y(s) T = s)$
Subsidy only	Neither subsidy nor bank loan	K(1)	-0.136 (0.016)	-0.149 (0.021)	-0.127 (0.019)
		K(2)	0.010 (0.015)	0.002 (0.022)	-0.001 (0.019)
		K(3)	0.078 (0.016)	0.068 (0.019)	0.076 (0.020)
		K(4)	0.029 (0.016)	0.042 (0.018)	0.013 (0.019)
		K(5)	0.026 (0.011)	0.035 (0.013)	0.043 (0.013)
		K(6)	-0.006 (0.008)	0.003 (0.007)	-0.004 (0.009)
	Loan only	K(1)	0.117 (0.010)	0.087 (0.008)	0.083 (0.011)
		K(2)	0.074 (0.023)	0.125 (0.014)	0.118 (0.014)
		K(3)	0.130 (0.024)	0.108 (0.014)	0.116 (0.016)
		K(4)	-0.078 (0.030)	-0.067 (0.016)	-0.080 (0.017)
		K(5)	-0.111 (0.027)	-0.142 (0.015)	-0.134 (0.016)
		K(6)	-0.132 (0.024)	-0.111 (0.009)	-0.104 (0.012)
	Both	K(1)	0.089 (0.009)	0.107 (0.011)	0.104 (0.015)
		K(2)	0.121 (0.011)	0.077 (0.025)	0.070 (0.029)
		K(3)	0.115 (0.014)	0.113 (0.029)	0.127 (0.029)
		K(4)	-0.049 (0.016)	-0.092 (0.031)	<i>-0.076 (0.040)</i>
		K(5)	-0.157 (0.014)	-0.100 (0.032)	-0.123 (0.034)
		K(6)	-0.118 (0.011)	-0.105 (0.027)	-0.101 (0.028)
Bank loan only	Neither subsidy nor bank loan	K(1)	-0.253 (0.016)	-0.224 (0.020)	-0.217 (0.020)
		K(2)	-0.064 (0.025)	-0.125 (0.020)	-0.114 (0.018)
		K(3)	-0.053 (0.025)	-0.030 (0.020)	-0.044 (0.020)
		K(4)	0.107 (0.032)	0.081 (0.026)	0.098 (0.026)
		K(5)	0.137 (0.028)	0.188 (0.017)	0.160 (0.021)
		K(6)	0.126 (0.024)	0.110 (0.013)	0.117 (0.019)
	Both	K(1)	-0.028 (0.009)	0.029 (0.011)	0.018 (0.013)
		K(2)	0.047 (0.022)	<i>-0.050 (0.027)</i>	-0.054 (0.027)
		K(3)	-0.016 (0.024)	0.001 (0.027)	0.031 (0.026)
		K(4)	0.029 (0.032)	-0.062 (0.035)	-0.037 (0.038)
		K(5)	-0.046 (0.029)	0.059 (0.031)	0.037 (0.035)
		K(6)	0.014 (0.025)	0.025 (0.031)	0.005 (0.027)
Both	Neither subsidy nor bank loan	K(1)	-0.225 (0.015)	-0.216 (0.017)	-0.255 (0.016)
		K(2)	-0.111 (0.015)	-0.042 (0.028)	-0.061 (0.031)
		K(3)	-0.037 (0.016)	-0.044 (0.033)	-0.043 (0.030)
		K(4)	0.078 (0.018)	0.070 (0.037)	0.111 (0.043)
		K(5)	0.183 (0.016)	0.131 (0.029)	0.145 (0.032)
		K(6)	0.112 (0.012)	0.101 (0.025)	0.103 (0.030)

Table A.9: Initial capital of the employed

$K(s)$: percentage of firms in the capital class s .

T = k	T = s	y	Difference of means	Causal effect (kernel)	
			$E(y(k) T = k) - E(y(s) T = s)$	$E(y(k) - y(s) T = k)$	$E(y(k) - y(s) T = s)$
Subsidy only	Neither subsidy nor bank loan	K(1)	-0.175 (0.020)	-0.166 (0.019)	-0.166 (0.026)
		K(2)	0.017 (0.023)	-0.018 (0.023)	0.016 (0.030)
		K(3)	0.029 (0.024)	0.017 (0.025)	-0.005 (0.030)
		K(4)	0.114 (0.028)	0.128 (0.031)	0.130 (0.032)
		K(5)	0.025 (0.020)	0.037 (0.023)	0.029 (0.024)
		K(6)	-0.009 (0.014)	0.002 (0.015)	-0.004 (0.020)
	Loan only	K(1)	0.058 (0.020)	0.086 (0.027)	0.084 (0.024)
		K(2)	0.108 (0.023)	0.068 (0.037)	0.050 (0.038)
		K(3)	0.095 (0.025)	0.130 (0.035)	0.119 (0.034)
		K(4)	0.067 (0.029)	0.100 (0.044)	0.103 (0.048)
		K(5)	-0.097 (0.022)	-0.094 (0.042)	-0.091 (0.038)
		K(6)	-0.231 (0.018)	-0.289 (0.044)	-0.266 (0.045)
	Both	K(1)	0.091 (0.021)	0.069 (0.027)	0.054 (0.022)
		K(2)	0.102 (0.027)	0.099 (0.027)	0.095 (0.026)
		K(3)	0.113 (0.030)	0.102 (0.029)	0.076 (0.026)
		K(4)	0.150 (0.037)	0.034 (0.033)	0.032 (0.039)
		K(5)	-0.115 (0.034)	-0.083 (0.028)	-0.087 (0.028)
		K(6)	-0.341 (0.035)	-0.220 (0.016)	-0.170 (0.022)
Bank loan only	Neither subsidy nor bank loan	K(1)	-0.234 (0.010)	-0.188 (0.017)	-0.254 (0.019)
		K(2)	-0.091 (0.009)	-0.087 (0.022)	-0.021 (0.037)
		K(3)	-0.066 (0.010)	-0.096 (0.021)	-0.084 (0.034)
		K(4)	0.046 (0.013)	-0.038 (0.032)	0.003 (0.037)
		K(5)	0.122 (0.012)	0.124 (0.034)	0.115 (0.036)
		K(6)	0.222 (0.012)	0.286 (0.034)	0.241 (0.043)
	Both	K(1)	0.033 (0.012)	-0.032 (0.018)	-0.032 (0.015)
		K(2)	-0.006 (0.018)	0.030 (0.025)	0.017 (0.018)
		K(3)	0.019 (0.021)	-0.030 (0.026)	-0.033 (0.024)
		K(4)	0.082 (0.027)	-0.038 (0.039)	-0.074 (0.036)
		K(5)	-0.019 (0.030)	0.034 (0.037)	0.033 (0.035)
		K(6)	-0.110 (0.034)	0.036 (0.038)	0.089 (0.036)
Both	Neither subsidy nor bank loan	K(1)	-0.267 (0.013)	-0.221 (0.010)	-0.232 (0.010)
		K(2)	-0.085 (0.018)	-0.096 (0.009)	-0.082 (0.010)
		K(3)	-0.085 (0.019)	-0.061 (0.011)	-0.070 (0.012)
		K(4)	-0.036 (0.025)	0.033 (0.015)	0.033 (0.016)
		K(5)	0.140 (0.029)	0.123 (0.013)	0.125 (0.015)
		K(6)	0.332 (0.032)	0.222 (0.015)	0.227 (0.015)

Appendix 5: Causal effects of subsidies and loans on the longevity of the new firms

Table A.10: firm survival for the long-term unemployed

$S(k)$: probability to be still operating at the end of the k -th semester after the creation.

T = k	T = s	y	Difference of means	Causal effect (kernel)	
			$E(y(k) T = k) - E(y(s) T = s)$	$E(y(k) - y(s) T = k)$	$E(y(k) - y(s) T = s)$
Subsidy only	Neither subsidy nor bank loan	S(1)	0.011 (0.009)	0.018 (0.011)	0.009 (0.013)
		S(2)	0.015 (0.016)	0.030 (0.019)	0.016 (0.021)
		S(3)	0.005 (0.019)	0.037 (0.025)	0.004 (0.024)
		S(4)	0.018 (0.021)	0.055 (0.027)	0.012 (0.027)
		S(5)	0.014 (0.022)	0.057 (0.027)	0.015 (0.028)
		S(6)	0.019 (0.022)	0.072 (0.028)	0.025 (0.030)
	Loan only	S(1)	-0.010 (0.016)	-0.010 (0.021)	-0.012 (0.016)
		S(2)	<i>-0.052 (0.027)</i>	-0.039 (0.038)	-0.053 (0.033)
		S(3)	-0.103 (0.034)	-0.062 (0.051)	-0.108 (0.041)
		S(4)	-0.134 (0.037)	-0.084 (0.060)	-0.139 (0.049)
		S(5)	-0.148 (0.040)	-0.080 (0.063)	-0.136 (0.053)
		S(6)	-0.108 (0.043)	-0.069 (0.064)	-0.107 (0.054)
	Both	S(1)	-0.001 (0.009)	-0.002 (0.011)	-0.010 (0.009)
		S(2)	-0.031 (0.015)	-0.034 (0.016)	-0.043 (0.018)
		S(3)	-0.067 (0.019)	-0.069 (0.020)	-0.073 (0.022)
		S(4)	-0.089 (0.021)	-0.095 (0.023)	-0.094 (0.023)
		S(5)	-0.076 (0.023)	-0.066 (0.025)	-0.073 (0.026)
		S(6)	-0.083 (0.023)	-0.068 (0.025)	-0.080 (0.026)
Bank loan only	Neither subsidy nor bank loan	S(1)	0.021 (0.017)	0.022 (0.024)	0.007 (0.034)
		S(2)	0.067 (0.028)	0.055 (0.042)	0.040 (0.053)
		S(3)	0.108 (0.035)	0.106 (0.049)	0.082 (0.061)
		S(4)	0.152 (0.039)	0.112 (0.055)	<i>0.119 (0.071)</i>
		S(5)	0.162 (0.041)	<i>0.099 (0.056)</i>	0.096 (0.072)
		S(6)	0.127 (0.045)	0.078 (0.063)	0.046 (0.079)
	Both	S(1)	0.009 (0.017)	0.010 (0.017)	0.027 (0.010)
		S(2)	0.021 (0.028)	0.012 (0.035)	0.006 (0.046)
		S(3)	0.037 (0.035)	0.023 (0.044)	-0.014 (0.056)
		S(4)	0.046 (0.039)	0.051 (0.050)	-0.011 (0.060)
		S(5)	<i>0.072 (0.042)</i>	<i>0.089 (0.051)</i>	0.010 (0.062)
		S(6)	0.026 (0.046)	0.066 (0.057)	-0.007 (0.062)
Both	Neither subsidy nor bank loan	S(1)	0.011 (0.011)	0.004 (0.014)	0.005 (0.015)
		S(2)	0.046 (0.018)	0.035 (0.024)	0.035 (0.024)
		S(3)	0.072 (0.022)	0.061 (0.031)	0.071 (0.028)
		S(4)	0.107 (0.024)	0.101 (0.033)	0.111 (0.029)
		S(5)	0.090 (0.025)	0.102 (0.033)	0.105 (0.030)
		S(6)	0.102 (0.026)	0.127 (0.034)	0.114 (0.033)

Table A.11: Firm survival for the short-term unemployed

$S(k)$: probability to be still operating at the end of the k -th semester after the creation.

T = k	T = s	y	Difference of means	Causal effect (kernel)	
			$E(y(k) T = k) - E(y(s) T = s)$	$E(y(k) - y(s) T = k)$	$E(y(k) - y(s) T = s)$
Subsidy only	Neither subsidy nor bank loan	S(1)	-0.001 (0.006)	0.001 (0.008)	-0.001 (0.008)
		S(2)	0.036 (0.013)	0.049 (0.016)	0.040 (0.017)
		S(3)	0.041 (0.016)	0.058 (0.023)	0.051 (0.018)
		S(4)	0.047 (0.017)	0.075 (0.021)	0.054 (0.020)
		S(5)	0.050 (0.018)	0.072 (0.022)	0.043 (0.022)
		S(6)	0.047 (0.018)	0.066 (0.022)	<i>0.040 (0.023)</i>
	Loan only	S(1)	-0.009 (0.009)	<i>-0.014 (0.008)</i>	-0.008 (0.010)
		S(2)	-0.023 (0.017)	-0.032 (0.022)	-0.029 (0.020)
		S(3)	-0.016 (0.024)	-0.006 (0.035)	-0.027 (0.026)
		S(4)	-0.019 (0.027)	0.005 (0.038)	-0.028 (0.031)
		S(5)	-0.034 (0.028)	-0.002 (0.038)	-0.033 (0.034)
		S(6)	<i>-0.051 (0.028)</i>	-0.018 (0.038)	-0.051 (0.034)
	Both	S(1)	-0.007 (0.005)	-0.003 (0.006)	-0.005 (0.006)
		S(2)	-0.026 (0.009)	-0.012 (0.012)	-0.025 (0.010)
		S(3)	-0.050 (0.012)	-0.029 (0.012)	-0.042 (0.013)
		S(4)	-0.072 (0.014)	-0.048 (0.014)	-0.058 (0.013)
		S(5)	-0.083 (0.014)	-0.053 (0.016)	-0.066 (0.015)
		S(6)	-0.091 (0.015)	-0.065 (0.016)	-0.073 (0.015)
Bank loan only	Neither subsidy nor bank loan	S(1)	0.009 (0.010)	-0.001 (0.012)	0.007 (0.012)
		S(2)	0.059 (0.020)	0.046 (0.022)	<i>0.050 (0.027)</i>
		S(3)	0.057 (0.026)	0.044 (0.033)	0.013 (0.036)
		S(4)	0.066 (0.029)	0.043 (0.036)	0.016 (0.040)
		S(5)	0.083 (0.031)	0.060 (0.040)	0.031 (0.042)
		S(6)	0.098 (0.031)	<i>0.080 (0.042)</i>	0.050 (0.042)
	Both	S(1)	0.003 (0.009)	0.002 (0.012)	0.008 (0.008)
		S(2)	-0.003 (0.018)	0.016 (0.022)	0.015 (0.021)
		S(3)	-0.035 (0.024)	0.008 (0.029)	-0.009 (0.027)
		S(4)	-0.053 (0.027)	-0.016 (0.031)	-0.041 (0.037)
		S(5)	-0.049 (0.029)	-0.018 (0.034)	-0.046 (0.037)
		S(6)	-0.040 (0.029)	-0.007 (0.036)	-0.044 (0.039)
Both	Neither subsidy nor bank loan	S(1)	0.007 (0.007)	0.012 (0.011)	0.004 (0.008)
		S(2)	0.062 (0.013)	0.072 (0.022)	0.054 (0.018)
		S(3)	0.091 (0.016)	0.108 (0.024)	0.078 (0.024)
		S(4)	0.119 (0.018)	0.132 (0.026)	0.107 (0.023)
		S(5)	0.132 (0.019)	0.142 (0.026)	0.110 (0.024)
		S(6)	0.138 (0.019)	0.146 (0.026)	0.117 (0.025)

Table A.11: Firm survival for the employed

$S(k)$: probability to be still operating at the end of the k -th semester after the creation.

T = k	T = s	Y	Difference of means	Causal effect (kernel)	
			$E(y(k) T = k) - E(y(s) T = s)$	$E(y(k) - y(s) T = k)$	$E(y(k) - y(s) T = s)$
Subsidy only	Neither subsidy nor bank loan	S(1)	0.001 (0.010)	-0.008 (0.013)	0.004 (0.011)
		S(2)	0.002 (0.017)	-0.002 (0.020)	0.011 (0.019)
		S(3)	-0.023 (0.022)	-0.025 (0.024)	-0.031 (0.026)
		S(4)	-0.008 (0.024)	-0.005 (0.027)	-0.041 (0.028)
		S(5)	0.005 (0.025)	0.011 (0.026)	-0.023 (0.029)
		S(6)	-0.009 (0.026)	-0.001 (0.028)	-0.028 (0.030)
	Loan only	S(1)	-0.014 (0.010)	-0.019 (0.011)	-0.011 (0.013)
		S(2)	-0.039 (0.017)	-0.037 (0.017)	-0.036 (0.021)
		S(3)	-0.084 (0.022)	-0.076 (0.025)	-0.088 (0.029)
		S(4)	-0.083 (0.024)	-0.075 (0.026)	-0.107 (0.032)
		S(5)	-0.082 (0.025)	-0.073 (0.026)	-0.103 (0.033)
		S(6)	-0.096 (0.027)	-0.089 (0.027)	-0.115 (0.034)
	Both	S(1)	-0.004 (0.014)	-0.013 (0.014)	-0.005 (0.012)
		S(2)	-0.027 (0.023)	-0.044 (0.024)	-0.042 (0.025)
		S(3)	-0.070 (0.028)	-0.066 (0.029)	-0.089 (0.037)
		S(4)	-0.081 (0.031)	-0.078 (0.031)	-0.108 (0.043)
		S(5)	-0.067 (0.034)	-0.081 (0.032)	-0.095 (0.048)
		S(6)	-0.075 (0.035)	-0.104 (0.033)	-0.116 (0.048)
Bank loan only	Neither subsidy nor bank loan	S(1)	0.015 (0.004)	0.014 (0.004)	0.016 (0.005)
		S(2)	0.042 (0.007)	0.043 (0.009)	0.040 (0.009)
		S(3)	0.061 (0.009)	0.061 (0.010)	0.056 (0.010)
		S(4)	0.074 (0.010)	0.076 (0.011)	0.069 (0.012)
		S(5)	0.087 (0.011)	0.087 (0.011)	0.077 (0.013)
		S(6)	0.087 (0.011)	0.089 (0.012)	0.079 (0.013)
	Both	S(1)	-0.010 (0.011)	0.001 (0.011)	0.007 (0.011)
		S(2)	-0.013 (0.017)	-0.002 (0.019)	0.001 (0.015)
		S(3)	-0.013 (0.020)	0.003 (0.025)	-0.002 (0.021)
		S(4)	-0.002 (0.023)	-0.007 (0.028)	-0.018 (0.024)
		S(5)	-0.016 (0.025)	-0.003 (0.031)	-0.009 (0.027)
		S(6)	-0.021 (0.027)	-0.004 (0.031)	-0.002 (0.028)
Both	Neither subsidy nor bank loan	S(1)	0.005 (0.011)	-0.001 (0.014)	0.007 (0.019)
		S(2)	0.029 (0.016)	0.037 (0.018)	0.045 (0.024)
		S(3)	0.047 (0.020)	0.047 (0.022)	0.052 (0.031)
		S(4)	0.073 (0.022)	0.069 (0.025)	0.081 (0.032)
		S(5)	0.071 (0.024)	0.082 (0.028)	0.095 (0.032)
		S(6)	0.066 (0.026)	0.080 (0.029)	0.101 (0.032)