Access to finance to the regional innovation in France and Japan

— Evidence and perspective in the region of Rhone-Alpes and some lessons for Japan —

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1. Introduction

Since the 1990s the Japanese economy has undergone substantial changes such as the rapid ascendance of emerging economies, the progress of economic globalization, and information technology innovation. In these circumstances, the Japanese economy faces not only the cyclical problem of maintain a sustainable growth path but also the structural problem of enhancing potential growth over the medium and long term. Furthermore, Tokyo offers massive benefits of agglomeration, while at the same time Japan is suffering from growing regional problems such as job creation. As a result, disparities of various forms in the region have become a major debate since early 2000s. For example, the rate of unemployment is highest in Okinawa with 6.9% and relatively low in Tokyo with 4.8% in 2012.

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In order to revitalize regional economy, it is important to advance regional innovation and to provide financial support to small and medium enterprises (SMEs) that may grow in response to the new business environment. Providing money to new business is a burning issue not only in Japan. Overseas policymakers are also deeply concerned about the sluggishness in finance for the new business in the severe economic environment. In Europe, to correct the regional imbalances, European Regional Development Fund (ERDF) contributes to the harmonious, balanced and sustainable development of economic activity in the region. In France, Paris has played the important role in respect of politics and economics until now. However, with the birth of European Monetary Union, local cities face the challenge if they progress from "one domestic city" to "one European city". There are 22 administrative regions in France. Among them, the region of Rhône-Alpes has achieved a growth rate exceeding the average for France and the European countries during the past 10 years. The population of this area has been increasing mostly 50 percent or more compared with the whole country in the past 20 years. The region has considerable potential for growth.

The main aim of this paper is to consider about financing for new business in the region of France, conducting interviews with financial institutions, company representatives from various industries, and local government. Specifically, I examine financing for entrepreneurs. Concretely, I will deal with how the growth fund is supplied and supported, what role European Commission, governments, central bank and financial institutions play, furthermore, what kind of problems remain to facilitate fund-raising for companies in French region.

This paper is divided into four sections. First, the section 2 provides the overviews of the economy in the Rhône-Alpes region and provides the summary of definition of SME. The section 3 provides recent developments of risk money to support SMEs in France and in Rhône-Alpes, by examining banks' lending practices and other financial supports as well as subvention programs taken so far by supporting organizations, and Section 4 discusses the various problems of lenders and borrowers, conducting interviews with financial institutions, company

representatives from various industries, and local government. Policies taken by the central banks in Japan and France also compared. Finally, Section 5 provides conclusion and some lessons for Japan learned from Rhône-Alpes' experiences.

2. Economy of the Rhône-Alpes

This section first overviews the economy in the Rhône-Alpes. The next section provides the summary of definition of SME in France.

2.1 Overview of the regional economy

The region of Rhône-Alpes is located in the south-east of the country and it shares borders with Italy and Switzerland²). It contains two economic core cities; Lyon, Grenoble. Two areas are in complementary relationship economically. In Lyon, there are many good capacities in health and biotechnologies, clean technologies, chemistry, automotive industry, electrical materials, production of machines, metallurgy. In Grenoble they focus on growth sectors in micro and nanotechnologies, software in particular with applications to biotechnologies, medicine and health. The population of the region increased from 5,350,701 in 1990 to 6,230,691 in 2010³). Since 2000, an average of 53,000 people has moved to the region every year. In terms of GDP, Rhône-Alpes is the second French region and the sixth region in the European Union.

Rhône-Alpes is still a major industrial region with traditional sectors such as automotive industries and plastics. Furthermore, its industry is diversified, with intermediate goods and equipment industries being highly represented (**Figure 1**). With 40 competitiveness poles and clusters, the region has considerable potential for growth as major European economic center. The region has significant assets which can be exploited in sectors such as biotechnologies and health, digital technologies, clean technologies, life sciences and business services.

There are roughly 335 thousand SMEs in the region (Figure 2). By a type of

²⁾ Rhône-Alpes is made up of seven departments including Rhône (Capital: Lyon).

³⁾ See INSEE "RGP" (General Population Census) and estimates of population (1/01/2010, last available data).

Figure 1 Number of private businesses per activity sector (Rhône-Alpes)

	Number of businesses	Number of employees	Employees in France (%)
a - Transport and warehousing	4 ,645	97 ,387	11 <i>A</i>
b - Accommodation and catering	16 ,309	103 ,934	11 4
c - Information and communication technologies	3 237	45 ,950	7 9
d - Financial and insurance activities	7 ,984	58 ,307	8 2
e - Property	4 256	21 267	10 .1
f - Services to businesses	13 ,955	117 ,395	10 .0
g - Services to private individuals	13 ,802	184 ,319	10 .6
h - Administration	226	17 570	9 9
i - Education, health and social services	13 ,903	185 502	10 3
j - Art, entertainments and leisure activities	4 ,980	22 504	9 .7
k - Other activities and services	11 ,010	51 ,679	9 .7
Total services Rhone-Alpes	94 ,307	905 ,814	10 2

Source: Pôle Emploi (Unistatis), 31/12/2010 (last available data)

Figure 2 Distribution of enterprises in terms of number of employees (Rhône-Alpes)

Number of employees	ND*	0	1 to 9	10 to 49	50 and over	Total
Industry	12 ,343	1 ,048	14 248	5 ,525	1 ,684	34 ,848
Building Civil	18 ,195	2 ,053	17 ,196	2 ,753	321	40 518
Trade	36 ,500	3 ,071	32 ,564	5 ,037	770	77 ,942
Services	108 ,833	7 ,842	54 ,584	8 ,620	1 ,677	181 ,556
Total	175 ,811	14 ,014	118 ,592	21 ,935	4 <i>4</i> 52	334 ,864

* ND: Number of businesses for which number of employees is not specified Source: INSEE, Directory of Enterprises and Establishments, 1/01/2006

industry, there are many service industries such as transportation systems and consulting. Judging by scale of enterprises, more than 80% of them are a small business of an employee with ten or less persons.

Three points can be pointed out as an economic feature about the region of Rhône-Alpes.

Firstly, an economic growth rate is comparatively high and R&D investment of a company is also active (**Figure 3**). Between 2003 and 2010, Rhône-Alpes registered a 1.8% average annual growth rate, higher than France (1.1%) and

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Figure 3 Main economic performances in 2012

	Rhône-Alpes	France	Euro (17)
Growth rate of GDP	2 5%	1 .7%	2 .0%
per capita (EU28 = 100)	108	108	100
R&D Expenditure (in 2007, % of GDP)	1.7	1 3	1 2
Unemployment rate	8 4%	10 3%	10 5%
(Long-term Unemployment)	2 .77%	4 .1%	4 .6%

Source: Eurostat

European countries (1.1%). Business expenditure on Research & Development (BERD) in Rhône-Alpes represented 1.7% of the regional GDP against 1.3% nationally in 2007. About four billion euros per year invested in R&D in the Rhône-Alpes; this amount is equivalent to that of spending in Finland and Denmark.

Another feature of the Rhône-Alpes region is the relatively low unemployment rate and the labor force with high quality. The unemployment rate was 8.4% in 2012, compared with 10.3% in the national rate and 10.5% in 17 European countries. Especially an unemployment rate over a long period of time is as low as 2.8%. As the region continues its post-industrial transition, more employees continue to shift from agricultural and manufacturing sectors to more service-based positions. Approximately 60% of the region's workers maintain service-based jobs. The region also benefits from a high level of synergy between education, research and industry.

With nearly 33% of the population under the age of 24, a highly developed education system has the potential for producing a highly motivated, intelligent, and efficient workforce. Eight universities and 35 grandes écoles serve 236,000 students annually and train nearly 15% of all of French engineers. Rhône-Alpes is fourth in Europe in terms of staff dedicated to research and development with 79,600 people.

Finally, the regional policy of Lyon is in export promotion and inward investment attraction. Exports as a proportion of sales are high at 12%, compared with 10% of the whole country. Rhône-Alpes has 4,600 businesses with a foreign capital base⁴. Entreprise Rhône-Alpes International (ERAI) was created to support the international development of SMEs in the region. This regional accompaniment

structure has five fields of expertise: Clusters, Invest, Export, International Financing, and Cooperation & International Relations. It provides support services for initial internationalization stages and organizes targeted collective and individual assignments. The agency acts on behalf of SMEs from the Rhône-Alpes region to integrate them into local clusters. It helps these companies capitalize on their know-how and their competencies on international markets and develop partnerships with various foreign actors.

The potentiality of Rhône-Alpes economy has been highly evaluated globally. For example, Rhône-Alpes is the second in France for the number of business set-ups, Lyon is the eighth most innovative city in the world out of the 256 cities rated in 2012 according to the Australian firm 2 think now's innovation cities, and the 2nd highest number of patent applications in France. 2,103 were filed in 2010, which is 13% of the national total. Rhône-Alpes ranks the 8th for scientific publications and the 10th for patents. The politics of Rhône-Alpes has been focused on the support to 'pôles de compétitivité' and to regional economic and research clusters.

2.2 Hiroshima Economy

In order to make the characteristics of financing in Rhône-Alpes clarify, I compare with the financing in Japanese regional city, Hiroshima in the later section. Hiroshima is situated in the southwestern part of Japan with a population of about 3 million people. Japan's leading manufacturing industries such as automobile manufacturing (Matsuda) and shipbuilding are established. Also, many mid-level small to medium businesses with superior technology (so-called "only-one companies"), as well as diversified powerful businesses including service, can also be found in Hiroshima.

2.3 French SMEs

In France SMEs are characterized as companies with fewer than 250 employees,

⁴⁾ By nationality, the export destination from France is the order of Germany, Italy, and Spain in 2006.

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Figure 4 TEA rates for main countries

	2003	2006	2009	2011
US	11 9	10 .0	0.8	12 3
France	1 .6	4 4	4 3	5 2
UK	6 4	5.8	5 .7	7 3
German	5 2	4 2	4 .1	5.6
Japan	2.8	2 9	3 3	5 2
China	11 .6	15 .7	18 &	24 .0

Source: GEM "2012 Global Report"

with sales of less than 50 million euros, or a balance sheet of less than 43 million euros. There are roughly 2.5 million SMEs in France. They account for 61% of the jobs in the private sector in 2009. However, some data used in this paper is different from this definition because of the availability of data.

The rate of new business startups and mortality are very low in France. Among the 24 participating EU countries, France is ranked the 21th with a TEA (The Total Entrepreneurial Activity⁵) rate of 5.2% in 2011, although it is considerably higher than in the years pre-2010 (**Figure 4**). The rate of mortality is still lower at 2% in 2011.

According to National Institute of Statistics and Economic Studies (INSEE: L'Institut National de la Statistique et des Études Économiques), the number of SMEs having sought access to finance has increased by 8.5% between 2007 and 2010, and is expected to further increase by 10.8% to 61.7% by 2013.

3. Developments in Finance to SMEs in France

This section presents the recent developments in finance to SME in France and in Rhône-Alpes, highlighting funds for entrepreneurs.

It first demonstrates overviews of French aspect of SME financing. The next subsection considers main supply means such bank loan, venture capital, business angel, crowd-funding as well as public support. The subsequent section investigates

⁵⁾ TEA rate assess the percent of working age population both about to start an entrepreneurial activity, and that have started one from a maximum of 3 years and half.

the various supporting system in the region, focusing on biotechnology businesses. Finally, some examples of financing are provided.

3.1 Overview

As financing of SMEs, there are mainly self-finance, bank loans, equity finance. Concerning new business, since there are information asymmetries and moral hazard problems inherent in the funding of a start-up firm, the new start-up firm or developing innovative companies with little or no cash flow acquires external financing mainly thorough subsidy, business angel and venture capital. The later stages of financing are frequently bank loans.

For SMEs in France, debt financing has been given precedence over equity financing (**Figure 5**). In 2012 the volume of bank loans for SMEs reached 188 billion euros, representing 9.3% of France's GDP. However, among these loans, the amount of loans to SMEs within establishment 3 year remains 23 billion euros. On the other hand, equity financing such as venture capital and business angel forms a smaller amount of financing. New methods such as crowd-financing have also tried. However, the amounts invested remains very limited.

Public institutions have been doing various assistances to SMEs. Especially, OSEO⁶) plays an important role and their loans increased heavily after the Lehman

Figure 5 Main financing SMEs and entrepreneurs in France: 2007-2012

In million euros

Indicator	2007	2008	2009	2010	2011**	2012	(RA*)
Loans to SMEs	158 ,612	166 <i>4</i> 57	165 ,875	173 233	184 ,049	188 ,325	9%
(3 years or less)	(21,944)	(22 ,780)	(21 532)	(22 ,130)	(24 ,334)	(22 ,765)	n.a
Venture capital	1 ,987	2 <i>4</i> 11	2 ,385	2 ,915	3 ,537	2 ,389	15%
Business angel	37	27	39	40	45	40	11% ***
OSEO loans	5 ,850	6 ,861	11 ,267	10 ,883	8 ,826	8 ,500	n.a
(GDP)	(1,886,792)	(1 ,933 ,195)	(1 ,885 ,763)	(1,936,720)	(2,001,398)	(2 ,032 ,297)	10%
<smaf***></smaf***>	< 96.8 >	< 95 8 >	<99 6>	< 105 .1 >	< 104 .1 >	n.a	n.a

^{*} RA: the share to all the France of the Rhône-Alpes region in 2011 and 2012.

Source: OECD, EVAN, BOF, INSEE

^{** 13} SMEs raised 126 million euros in financial markets in 2011

^{***} It shows an indication of the development of SMEs' access to finance over time for the EU and its Member States.

The index comprises three main elements: access to debt finance, access to equity finance, perceptions of SMEs in relation to accessing finance.

shock. However, according to European Commission, the condition for accessing public financial support, including guarantees, seems restrictive in France⁷⁾.

As for the region of Rhône-Alpes, although the data is limited⁸, there are comparatively few loans and much equity finance, compared with France as a whole.

Compared to other European countries, France offers relatively better conditions for access to various sources of financing for SMEs. European Commission provides the SMAF index availability⁹⁾. It shows an indication of the development of SMEs' access to finance over time for the EU and its member countries. The index comprises three main elements: access to debt finance, access to equity finance, perceptions of SMEs in relation to accessing finance. The index scored highest in Luxembourg, Finland, each scoring between 115 and 120 points in 2011. France has ranked 7th among 28 European countries at 104 points (**Figure 6**). It has improved from 2007 at 96.8 points.

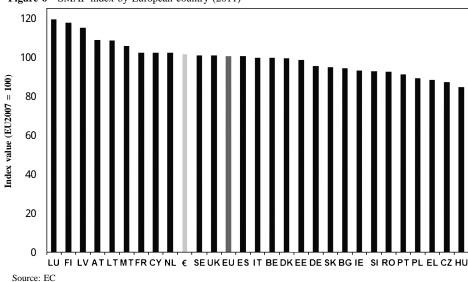


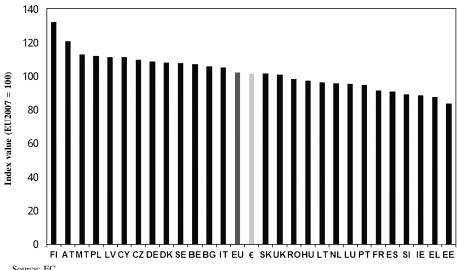
Figure 6 SMAF index by European country (2011)

⁶⁾ OSEO becomes Bpifrance Financement, merging with other public organizations in 2013.

⁷⁾ See the Small Business Act (SBA) Fact Sheets.

⁸⁾ Regional data is available since 2007 for bank loans and venture capital and since 2011 for business angel.

⁹⁾ The index is calculated using EU 2007=100. The base reference of 2007 deliberately provides a baseline before the onset of the financial downturn.



SME perceptions on accessing finance by European country (2011)

Source: EC

Other information can be gathered from demand side of the risk money. Figure 7 shows SME perceptions, taking account of the extent to which finance is the most pressing problem facing a business, overall take-up of external finance, and the extent to which SMEs don't apply for bank loans due to fear of rejection. Among the European countries at the top of this index in 2011 were Finland, Austria. France had relatively low scores on this index at 91.3 in 2011.

This may suggest two possibilities. First, many entrepreneurs may not know well about the information on financing. Secondly, the tightening of the standards applied to borrowers has had the effect of discouraging from applying for a loan.

Loans to SME¹⁰⁾ 3.2

In France bank loans remain SMEs' preferred source of financing as a whole. French banking sector is characterized by the importance of big banks, mutual and saving banks and a relatively strong influence of the government. Both total business loans and SME loans increased more than the euro area over the period 2007-2012, although outstanding of loans declined temporarily after the Lehman shock (Figure 8). The share of SME loans in total business loans stood at 20.9% in 2012

¹⁰⁾ The Bank of France has broken business loans into various categories including microenterprises and independent SMEs, SMEs belonging to a group, large enterprises and holdings.

Figure 8 Loans (drawn) to SME: 2007-2012

In EUR million

Indicator	2007	2008	2009	2010	2011	2012
All France SME loans	158 ,612	166 <i>4</i> 57	165 ,875	173 233	184 ,049	188 ,325
(3 years or less)	21 ,944	22 ,780	21 532	22 ,130	24 ,334	22 ,765
<share in="" loans="" of="" sme="" total=""></share>	< 20 .7 >	< 20 4>	< 20 2 >	< 20.6 >	< 20 9 >	< 20 9 >
Rhône-Alpes SME loans	13 ,896	15 ,587	15 ,928	16 ,900	18 ,331	18 ,856
<share in="" loans="" of="" sme="" total=""></share>	<11 9>	< 12 4>	<12.3>	< 12 .0 >	< 12 .1 >	< 12 .0 >
Interest rate ind.*%	5 23	4 86	3 35	3 49	3 .96	3 20
Interest rate group%	5 .72	4 91	2 58	2 <i>4</i> 5	3 .01	2 .15
Spread** %	0 .02	0 91	1 <i>A</i> 1	1 53	1 32	1 37

^{*} Interest rate for independent SMEs

Source: Bank of France

about the nearly same level as in 2007. However, among these loans, the amount of loans to SMEs within establishment 3 years has not increased over the past five years.

As for Rhône-Alpes, although share of SME in total loans are relatively small, SME loans expanded rapidly over the past five years. From 2007 to 2012 the outstanding increased by 36% in Rhône-Alpes, far exceeded the France as a whole of 19%. In Rhône-Alpes, the urban redevelopment is active and the number of population has been increasing, therefore loans for construction and real estate sector have been increasing.

However, the bank is prudent in the loan to a small business, affected by the Lehman shack. Start-ups and innovative companies have difficulties in acceding to commercial bank loans. Although the proportion of rejected loans is relatively low at 11% in 2011, compared with the EU average at 15%, French business owners perceived they have noticed the deterioration in the banks' willingness to provide loans. In France, 33% of respondents answered willingness of banks to provide a loan is restrictive, compared with 27% in EU. This was confirmed by the comparison of interest rates charged for large firms vs. small companies. Interest rate spread between large enterprises and independent SMEs increased heavily between 2007 and 2010. Although the spread reduced for SMEs in a group, the spread

^{**} Interest rate spread between large enterprises and independent SMEs

remained at high levels for independent SMEs since 2009. There is also a fear amongst professionals that financial institutions will be even less likely to lend to SMEs in the run up to the introduction of the Basel III prudential measures in 2013. This may suggest that the continuing tightening of the standards applied to SMEs has had the effect of discouraging many entrepreneurs from applying for a loan. As a result, they sometimes require a relatively large initial sum to launch a product.

3.3 Venture capital

There is comparatively much venture capital investment of France compared with other European countries¹¹. The value of venture and expansion capital invested reached 2.4 billion euros in 2012. Although the amount invested reduced in 2012, it tends to increase since 2002 (**Figure 9**). And the number of venture backed companies remained stable at almost 1,300 companies during the past few years. Expansion capital accounted for the majority of venture capital activity by amount and number of companies. By sector, almost two thirds were invested in transportation, consumer goods and chemicals and materials.

As for Rhône-Alpes, venture capital investment has increased. The local fund and the national fund have invested according to the development stage of a new company. In an early stage, it is regional venture capitals that have played a key role in financing for innovative start-ups based in the Rhône-Alpes area (**Figure 10**). At first stage, "Amorçage Rhône-Alpes" invested in 18 new businesses with more than 5 million euros. Although the final result will be announced in 2014, it seems that this fund already secured black figures in 2012. Another local capital "The Rhône-Alpes Création¹²," is managing more than 40 million euros. This fund is founded in 1990 and the deadline for the fund is as long as 28 years. It has reinvested the profits obtained by past investment in new companies. The investment strategy is dedicated to companies in the information technology, biotechnologies, and environment sectors at innovative start-ups. The fund invest them from six to eight years. Its intervention is systematically co-investment with other seed funds, proximity venture capitalists, or business-angels. It supports its affiliates to define

¹¹⁾ See EVCA (2012).

^{12) 51%} of the capital composition is private sector and 49% is public with support of CDC.

Figure 9 Private equity investment (By stage of investment) 2005-2012

in million euros

	Stage	2006	2007	2008*	2009	2010	2011	2012
France	Venture capital	536	677	758	587	605	597	443
	Expansion capital	1 ,057	1 ,310	1 ,653	1 ,798	2 ,310	2 ,940	1 ,946
	Sub-total	1 ,593	1 ,987	2 411	2 ,385	2 ,915	3 ,537	2 ,389
	<number></number>	<816>	< <i>973</i> >	< 1135 >	< 1180 >	< 1374 >	< 1331 >	< 1236 >
Rhône-	Venture capital	n.a.	n.a.	55	40	79	44	49
Alpes	Expansion capital	n.a.	n.a.	176	178	206	386	210
	Sub-total	n.a.	n.a.	231	218	285	430	259
	<number></number>	n.a.	n.a.	< 137 >	< 151 >	< 168 >	< 155 >	< 119 >

^{*} Investment in the enterprises of the CAC40 since 2008.

Source: Association française des investisseurs en capital (AFIC)/Grant Thornton.

Figure 10 Regional venture funds in Rhône-Alpes

Name	Period	Amount of money	Number of SMEs invested
Rhône-Alpes Création I	1990 2018	17 million euros	63
Amorçage Rhône-Alpes	2002 2014	5.6 million euros	18
Rhône-Alpes Création II	2012 2026	21 million euros	n.a

Source: Rhône-Alpes Création

strategic guide lines and to raise new founds by mobilizing its national and international network of investors. Until 2013 it invested more than 220 companies and they currently manage a portfolio of 63 companies. Some companies invested have achieved IPO¹³. A new fund named Rhône-Alpes Création II raised in June 2012 with represents 21 million euros (**Figure 10**).

At the emerging growth stage, national venture funds have invested in companies. There are mainly four funds: two Venture Capital Funds (FCPR: Fonds communs de placement à risques and SCR: Sociétés de capital risque), Innovation Funds (FCPI: Fonds communs de placement dans l'Innovation), Local Investment Funds (FIP: Fonds d'investissement de proximité). Among them, FCPR has most invested in value (**Figure 11**). By the development stage of the company, FCPI invested in the earlier stage. National funds are introduced as a direct individuals'

¹³⁾ For example, Nanobiotix achieved IPO in October 2012.

Figure 11 Specific types of funds with tax incentive schemes

		Share of total investment (%)			
type	Investment funds scheme	France	RA		
		(2012)	(2011)		
FCPR	at least 50% of the assets must be invested in non-listed companies	60	65		
SCR	at least 50% of the assets must be invested in non-listed companies.	5	14		
FCPI	at least 60% of the assets must be invested in innovative companies	3	3		
FIP	at least 60% of the assets must be invested in non-listed companies located in up to a max of 4 different geographical regions	12	9		
Total		100	100		

Source: AFIC

savings towards innovative new companies in exchange for tax advantages¹⁴. Consequently, despite the credit crunch after Lehman shock, venture capital funds have continued to invest. About four-fifth of the funds invested in capital investment have come through these funds from 2009 to 2012.

Recently, some business accelerators such as Pepites and Axeleo have begun to play the same role as a venture capital fund. Especially, these accelerators are concentrated on their investment at the later stages.

Concerning the capitalization of SMEs in financial markets, the activities are limited in France. Historically, in 1983, the secondary market started integrating medium-sized family companies. In 1996 the French New Market (FNM) was created to improve the financing of growing French companies. After its creation,

¹⁴⁾ In France, the Innovation Act was introduced by the government in 1999, with the aim of encouraging academic institutions to protect and commercialize their scientists' inventions. Individuals investing though these funds can benefit from an exemption from French tax on income distributed and on capital gains realized on the sale of shares in the fund when they have not sold their units in the fund before a five-year restricted period. French companies investing through FCPRs or SCRs can benefit from 0% or 15% corporate tax on long-term capital gains received from the fund or the SCR, or realized on the sale of securities of the SCR if they do not sell or redeem their units in the fund or securities in the SCRs before the five-year restricted period.

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Figure 12 Number of SMEs and mid-caps listed in French Stock Market (by year)

	2008	2009	2010	2011
Euronext B	179	125	136	133
Euronext C	289	353	305	276
Alternext	105	102	133	153
Total	573	580	574	562*
New entry (PME-MC)	<6>	<2>	< 24 >	< 22 >
Withdrawals (PME-MC)	< 27>	< 24>	< 17>	< 30>

^{* 438} non-financial companies, 110 financial companies, 14 other companies

Source: L'Observatoire du financement des entreprises par le marché

the FNM successively expanded and collapsed following the bursting of the dotcom bubble in 2000. As an equity market that deals in innovative, high-growth companies, Alternext is created in 2005. However, only 438 SMEs and mid-caps were listed in Alternext and Euronext 15 markets in 2011. More importantly, the number of SMEs and mid-caps listed has decreased since 2008. Between 2008 and 2011, while 54 SMEs were introduced on Alternext and Euronext, 98 enterprises were delisted 16 (**Figure 12**).

In 2011, 22 companies were introduced on the financial market. Among them, 13 companies were the object of an offer to the public. They raised more than 126 million euros. As for Rhône-Alpes, 56 SME and mid-caps were listed. Among them, 46 were nonfinancial companies.

3.4 Business angel finance

The majority of funding by business angels takes place at the seed and early stage/start-up level. Since business angels provide both financing and managerial experience, they tend to support ventures that are in their own region. Concerning the size of the market, as the business angels market is characterized by an informal financing, reliable statistical data is not available. EBAN (the European Trade

¹⁵⁾ Euronext is the first integrated cross-border exchange, combining the stock exchanges of Amsterdam, Paris, Brussels and Lisbon into a single market.

¹⁶⁾ Among them, 44 left as result of mergers or acquisition, 23 did so as a result of financial difficulties, 31 left in a sound financial state for strategic reasons.

Association for Business Angels, Seed Funds and other early Stage market Players) provides statistics of visible business angel activity every year. However, as the survey has a number of limitations, it represents a low end estimate. In 2012 the European Commission conducted a study on the business angels market. According to them, France has the second largest Business Angel market in Europe. The market increased steadily over the past four years from 37 million euros to 63 million euros. They also estimate the number of Angels in France might be between 6,000 and 8,000. Average amount invested per deal is 136,000 euros.

The sector most benefiting from Business Angel investment in France is ICT, followed by Biotechnologies, clean technologies, Energy and Med technologies. Together, these five sectors account for three quarters of visible Business Angel activity in the past three years (**Figure 13**).

According to France Angels, among 84 networks, 11 are in Rhône-Alpes. The investment in Rhône-Alpes accounted for 13.3 percent in 2011 and 8.8% in 2012.

Although the total amount invested is small, crowd-finance is growing very quickly in France. This new financing method is not fit for start-up firms. However, it begins to be utilized in the development stage. Moreover, this technique is used not only for mere financing but for judgment of potential demand for goods and services. Between 2008 and 2011, 25 platforms such as Kisskissbankbank and Kickstarter have financed 15,000 projects for an amount of 6 million euros by

Figure 13 Investment of business angels by sector (2010) Sector % share of investments

Sector /0 share of investments	
ICT	40
Biotechnologies	14
Clean technologies	9
Energy	8
Med technologies	8
Mobile	7
Social and sustainable investments	4
Creative industries	2
Other	9

Source: EBAN

35,000 investors¹⁷⁾. Other studies have shown that crowd-funding projects may amount to €80 million in 2013, twice as much as the previous year¹⁸⁾. The government of France is drafting a new law that aims to make the practice of pooling resources to fund private ventures easier and more competitive. They released a guide to crowd-funding in 2013.

3.5 Public loans

A number of policy measures have been taken to support SMEs in France. There are several institutions responsible for public funding, including OSEO, CDC Enterprises, the Strategic Investment Fund (Fonds stratrategique d'investissement), Ubifrance, the credit ombudsman and various regional bodies. The most significant role has been performed by OSEO. OSEO was set up in 2005. Their mission is to provide assistance and financial support for French SMEs in the most decisive phases of their life cycle. OSEO's involvement in a project is to work as a leverage to obtain private financing. It provides guarantees (up to 70% of the risks assumed by the bank or by venture capital providers), co-financing, direct loans (0% interest rate loans are included), and support for innovation and services (Figure 14).

The OSEO guarantees allowed more than 73,000 enterprises to obtain 8.5 billion euros in financing in 2012 (**Figure 15**). By stage of loans, the activity of the development fund and creation fund occupies three-quarters. Especially, after Lehman shock, as the series of recovery plan was introduced, loans increased

Figure 14 OSEO's Main Activities

Million euros 2011 2008 2009 2010 . 2012 Innovation aid 733 560 650 659 744 8 500 6 861 11 267 10 883 8 826 guaranteed loans 410 796 824 534 611 g.l.by OSEO Régions 2,072 2 581 3 233 4,164 4 ,701 Investment co-financing 5 ,003 5 ,126 5 ,401 6 299 6,998 Short-term financing

Source: OSEO Annual report

¹⁷⁾ La Tribune, 27.3.2012, Meeting of 26.3.12 at the Palais Brongniart.

¹⁸⁾ See European Commission.

Figure 15 OSEO's guaranteed loans (By stage of investment) 2005-2012

Million euros

	2009	2010 .	2011	2012
Amount of guaranteed loans	11 ,267	10 ,883	8 826	8 500
Creation	2 ,800	3 ,139	3 ,093	2 ,751
Transfer/buy-out	1 ,560	1 ,754	1 ,736	1 ,595
Development	4 ,333	4 ,347	3 ,581	3 ,814
Strengthening of permanent capital	2 ,574	1 ,644	416	340
Number of supported companies	81 ,256	80 ,713	74 ,012	73 ,915
Creation	46 ,773	53 <i>4</i> 49	55 ,305	53 278
Transfer/buy-out	4 <i>4</i> 97	4 ,937	5 <i>4</i> 24	5 ,719
Development	16 ,756	15 ,176	11 ,843	13 ,518
Strengthening of permanent capital	13 ,230	7 ,151	1 ,440	1 400

Source: OSEO Annual report

sharply. OSEO estimated that 50% of the enterprises they had supported were saved from bankruptcy and 30,000 jobs had been saved throughout France. In addition to the guaranteed loans, investment co-financing and short-term financing have also increased since 2008.

The function of OSEO is strengthened. In 2012, OSEO created 'OSEO Industrie' - a bank for companies, with funds worth 1 billion euros. This allowed it to borrow another 9 billion euros, making a total of 10 billion euros. These funds are mainly used to finance medium-sized companies in the industrial sector.

Furthermore, in 2013, Bpifrance merges OSEO, CDC Entreprises, FSI and FSI Régions together into one institution. The group officially becomes one entity, composed of Bpifrance Financement (previously Oséo) and Bpifrance Investissement (regrouping CDC Entreprises, FSI and FSI Régions). The role of the newly created entity is to support the French economy in an efficient way, by gathering all resources together in a single institution.

3.6 Other financial support programs for new business by public sector

Various financial support programs for start-ups and innovative companies are provided in France on EC level, on the national level, and on the local level (region and department). The Regional Council, together with OSEO regional directorate, is the main providers of funding and support for innovation activities in the region. As the system vary depending on the type of partners, objectives and duration, in this section, I deal mainly with the case of the biotechnology sector as an example. In the health sector 20% of investment for funding program in Rhône-Alpes is dedicated in 2012. Eight R&D infrastructures are located in Rhône-Alpes.

(1) EU level support

At first, the European Union (EU) provides financing as a whole under the European Regional Development Fund (ERDF). An Operational Program for the Rhône-Alpes region for 2007-2013 has a total budget of 812 million euros. Among them, 334 million euros was financed by the EU. About 40% of total investment is used for innovation and knowledge-based economy. This program support technological innovation for the benefit of enterprises by increasing the proportion of R&D in the activity of enterprises. The regional prefecture is managing the ERDF funds and the related innovation.

In addition, Eureka provides various R&D funding. Eurostars Program mainly provides refundable loans without interest. Grants are also possible for industrial research phases. SMEs above 50 employees are the main target. Their projects are limited to a maximum duration of three years, with the funded research's market launch occurring within two years of project completion.

Figure 16 Main European R&D projects funding

Program	Support project	Schemes
Eurostars (Eureka)	Short term, near market and innovative, collaborative projects lead by SMEs	Refundable loans without interest Grants for industrial research phases
FP7	R&D Specific programme on cooperation	Technological R&D: up to 75% Demonstration activities: up to 50% Other activities: up to 100%
IMI	precompetitive and prospective pharmaceutical R&D	Direct eligible costs (Research activities: max of 75%, Others: max of 100%) Indirect eligible costs: 20%
EDCTP	Speed up the development of medicine, vaccines and microbicides against AIDS, malaria and tuberculosis	*The budget: €400 M for 2003-2015.

Source: Lyonbiopole

As for Rhône-Alpes, two knowledge projects, plastics manufacturing and renewable energies and energy efficiency, have been coordinated as part of the 7th Framework Program (FP7). The former accounts for over 50,000 jobs in the region. The Innovative Medicines Initiative (IMI) also supports financially the pan-European research collaborations in the field of innovative medicines to strengthen their safety and effectiveness. According to the EC, the current initiative has funded 40 ongoing projects. A total of three billion euros is available from 2014 to 2024 in France.

(2) National level Support

The stimulation of private R&D is placed as a key area in the French National Reform Program 2011-2014. They provide various support measures primarily via OSEO and also via the mechanism that provides assistance to innovative young start-ups.

OSEO provides the "Innovation Stratégique Industrielle" (ISI) program, which backs ambitious, collaborative and innovative projects with industrial purpose, held by medium-sized companies and SMEs. The amounts supported are between 3 and 10 million euros. It is composed of grants (max of 50% of total costs) and repayable advances (40% of eligible expenditure for experimental development work).

In the early stage of young companies, Inter-Ministry Fund (FUI) is funding research projects and clusters' collaborative development on the products or services' development. They support applied research projects which may be put on the market in the short or middle term. It allows for the financing of collaborative research and development projects (SMEs, large accounts, laboratories) by centers of excellence with two calls for projects every year. The projects accepted could get the support of the State and local authorities concerned.

The French National Research Agency (ANR), created in 2005, also provides funding for project-based research. One of the ANR's duties is to promote the transfer of public research results to the industry. In addition to collaborative public-private partnership projects, the ANR has a series of programmes to boost partnerships between laboratories and companies according to various project research methods.

(3) Regional level support

A huge majority of measures are co-funded by the region and State or the EU. Only a very few measures are funded by the region alone. Additionally, to support the creation and growth of innovative enterprises, the different SME finance providers act complementarily and link up to form a regional value chain. In order to see those activities concretely, I introduce four examples.

Firstly, Créalys, the West Rhône-Alpes region business incubator¹⁹, supports business developed in partnership with a public sector research during the pre-set up phase. Its funders are the Regional Council of Rhône-Alpes and the Ministry of higher education and research. Créalys became the first French incubator in terms of number of academic spin-offs created (119, of which 96 have been still in activity in mid-2013) in 2010. with a survival rate of 97% over the first three years and 76% after 5 years. These businesses created 1,600 direct jobs.

Secondly, another major incubator is "Novacité (Centre Européen d'Entreprise et d'Innovation). Established in 1987, it provides personalized accompaniment in the areas of human resources, marketing, sales and finance during the first three years of a company's existence. It selects between 12 and 15 projects every year and provides non-interest loan for three years. Until 2013 they have supported 320 companies. The companies have generated over 2,300 jobs and sales of €308 million for those that are still active in 2013. Among those companies, more than 92 percent are surviving after 5 years. 60% of projects supported by Novacité are part of the biotechnology and information and communications technology sectors. In 2013, they created new program "Pepite" to provide growth capital and management resources to companies and businesses that contribute to regional economy during the additional two years.

Thirdly, the Cancéropôle Lyon Auvergne Rhône-Alpes (CLARA: cancer cluster) has the objective to structure and facilitate cancer research in the French Rhône-Alpes Auvergne inter region by bringing together academic, clinical and industrial strengths in order to develop a network with a European dimension. CLARA is distinct from other French cancéropôles due to its amplitude of funding

¹⁹⁾ Crealys was created in 1999 with no fixed end date. It has an annual average budget of €1m.

by local authorities. This feature confers strong economic objectives, on top of the objectives related to scientific excellence and public health as presented in the French Cancer Plans. 14 projects selected since 2005 corresponding to 18 million euros budget. 4.8 million euros is provided by the CLARA and 13 million euros by 11 industrial partners.

Finally, the Initiative Rhône-Alpes, non-profit association, provides interest-free loan during 18 months with no personal guarantee, along with technical and human supports. This interest-free loan makes the company easier to obtain an additional bank loan. In 2012 they provided 12 million euros to 1,698 companies and private bank provided 84 million euros of bank loans. That is, the leverage effect of loans on trust on bank loans was about seven. They also start "INOVISI" program, including supports for the later stage companies, This program is aimed at comparatively small-scale business, compared with program "Pepite".

3.7 Financing of SMEs actually performed

As indicated before, the French system offers a wide range of financial assistance to a business start-up, both from public and from private. In order to see how company has actually received money, below, two examples are examined.

First is one of the main clusters in the health sector, Lyonbiopole. It is specializing in diagnostics and biotechnology research. From 2005 to 2013, they credited 129 projects for a total R&D investment of 611 million euros. Among them, 248 million euros, equivalent to 40 percent of the whole, have been obtained from French State, EU and local authorities. In respect of the amount of money, the OSEO related loan occupies the half. In respect of the number of loans, the ANR loan occupies two-thirds. Among 129 projects, 42 have been completed and 11 projects lead to the creating start-ups and 393 jobs are created. The projects have also generated process innovations representing around 62 patents. As a whole, success rate is high at 67%, compared to a national average of 52%.

Next example is a young company of biotechnology. The company received financial support from the proposal of business to starting of a company (**Figure 18**).

Access to finance to the regional innovation in France and Japan

Figure 17 public funding obtained from 2005 to 2012 at Lyonbiopole

	Number of project	Total spending Million euros	Public Fund Million euros
FUI	34	179	70
ANR	84	145	48
OSEO (ISI)	4	266	117
EU (ERDF)	3	13	9
OSEO & CT	4	8	4
Total	129	611	248

Source: Lyonbiopole

Figure 18 An example of financing of a certain start-up company in Rhône-Alpes

	Region / National	Maximum Amount (euros)	Category
Before	Créalys (Region)	100,000	Refundable advance
start-ups	Fonds d'appui au porteur (Region)	90,000 (Means 29,000)	Interest free loans, no personal guarantee
	OSEO (National)	45,000	Subsidy (categories in emergence)
After	RAC (Region/Private equity)	800,000	Investment fund
start-ups	OSEO (National)	90,000	Refundable advance at the level of stockholders' equity
	INOVIZI (Region)	80,000	Regional fund guaranteed in 70% by OSEO
	Fond d'innovation du Rhône (Region)	45,000	Refundable advance (Novacité or the label)
	Réseau entreprendre (National)	24,000 to 40,000	Loan on honor (Condition: create 7 jobs in 3 years)
	ERAI (National)	30,000	In case of export

The company received many advices from incubator at the beginning. And money was provided as a form of refundable advance, subsidy from region and national. After start-ups, they received not only additional refundable advance and subvention but also venture fund and loans. In respect of the amount of money, investment fund plays an important role.

4. The characteristics and challenges for finance to new business

This section analyses the characteristics of finance to SMEs mentioned above, mainly focusing on finance for start-ups companies. Section 4.1 and 4.2 summarizes the characteristics of finance to SMEs in Rhône-Alpes, comparing Japanese model in the region. Next section considers problems of SME financing and examines the efforts to solve them. Finally, section 4.4 considers the role of central bank concerning support to finance to SME.

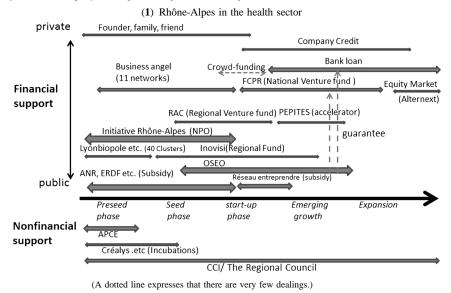
4.1 SME finance in Rhône-Alpes and Hiroshima

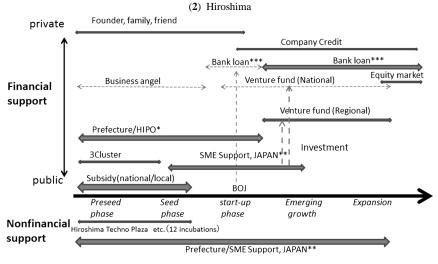
In Rhône-Alpes, as **Figure 19-1** shows, there are wide ranges of financial assistance organization for newly established business, both from public and from private. Before starting business phase, clusters, many kinds of NPOs and business angels support entrepreneurs. There are about 40 poles and clusters, 11 business angels' networks in Rhône-Alpes. There are many experts with PhD, and they offered their know-how. The schemes of subsidy are administered by a variety of different bodies at a national and a regional level. Agence pour la création d'entreprises (APCE) has a list of most of the main schemes. Therefore, SMEs can benefits from different funding sources according to the development stage of a company.

After start-up, regional venture capital and other regional funds such as INOVISI and Novacité play an important role in providing money. Crowd-funding platforms are also beginning to spread. The subsidy aiming at job creation such as "Réseau entreprendre" is also prepared. The later stages of financing, banks and other financial organizations provide the money for companies.

On the other hand, **Figure 19-2** shows the case in Hiroshima. The prefecture takes initiative in new business, expansion of economic exchange with Asia, firmly linked with the local community and closely coordinates with local financial institutions. They provide "Hiroshima venture subsidy". Regional banks also play an important role in providing money. As regional venture capital, Hiroshima Venture Capital Co. established in 1995 with full financing from regional bank, has invested

Figure 19 Company development stage and financing





- * Hiroshima Industrial Promotion Organization
- ** Organization for Small & Medium Enterprises and Regional Innovation , JAPAN
- *** including loans by credit union

(A dotted line expresses that there are very few dealings.)

in the local start-up business with the small-scale fund (500 million yens). In addition, Hiroshima Innovation Network Inc with a comparatively big scale (10 billion yens) was founded in 2011, supported by Hiroshima Prefecture. They invest mainly in later stage companies.

At national level, Organization for Small & Medium Enterprises and Regional Innovation, JAPAN (SMRJ) provides various support measures including consultation at advice counters and dispatching experts, in order to resolve problems related to start-ups and new business development. SMRJ provides support according to the individual needs of SMEs in collaboration with government agencies, SME support organizations, financial institutions and research institutions. Also, 12 incubators plays an important role in assisting SME start-ups. However, there are only three clusters of auto industry medical correlative industry, environmental clean-up industry. Also, financial assistance to newly established business such as business angel and NPO is limited.

4.2 Characteristics of SME finance in Rhône-Alpes

Concerning finance to new business in Rhône-Alpes, five characteristics are pointed out.

First of all, as mentioned above, there are extremely wide ranges of financial assistance scheme, especially before start-up phase. It includes incubators, clusters, other NPOs, business angels and regional venture fund. These organizations specialize the field of activities. Then, entrepreneurs have the choice to work with a variety of specialized agencies and consulting companies when they start business.

Secondly, multi skilled team supports new business together in many cases. Both the public and private sectors of a community join forces in supporting entrepreneurs. This system has the merit that many checks can be applied from a broad field. However, this system also has simultaneously the demerit that the responsibility for support becomes ambiguous.

Thirdly, government intervention has a strong influence on financing for start-ups. Not only at regional level but also at national and EU level, many measures are provided. Public start-up and innovation funds, public subsidies, repayable short-term loans, government grants and refundable advances guarantee schemes, public investment funds are rich. In addition, to help innovative companies, the government introduces tax-advantaged investment schemes such as FCPI for investors. The government is also tackling a new financing vehicle positively. As for crowd-funding, the government is preparing to craft specific proposals in the hopes

of building an environment that fosters the development of this new form of financing projects.

Fourthly, judging from the amount of providing money, the dependence of bank loans is still large. However, the amount of loans to SMEs within establishment 3 years has not increased over the past five years. Moreover, private banks in France are centralized and headquarter at Paris controls a large part of the entire business. They decide the scheme concerning SME Financing. Therefore, the scheme is management-oriented and it takes often longer time to advance the credit process. In this point, in Japan, regional banks, with region-based relationship banking, have advantages in gathering/producing information about their clients, because of mainly the nature of information production.

Finally, an export promotion policy is conspicuous. The internationalization of clusters have been promoted. The goods and service demand of the tip fields have attained to all the world. By birth of European monetary union, the export-and-import activities in Europe become more activating. At the national level, several specialized agencies assist companies in their international expansion. At the regional level, ERAI helps local companies to expand into foreign markets. They advise 320 companies on international financing and prospects 25,000 business contacts worldwide.

4.3 Problems of SME financing

Despite of rich support system for new business, judging from actual activities of SME, the result is not satisfactory in France. Entrepreneurial activity (TEA) rate is very low. As far as the amount of bank loan and private equity is concerned, financial institutions do not execute enough loans and investments that contribute to strengthening the foundations for economic growth. On the one hand, banks and investors have money but don't find enough good projects because of aggravation of corporate earnings, and shortage of financial statements. On the other hand, entrepreneurs perceive that investors and banks are reluctant to engage in debt financing, or to raise equity. Furthermore, to improve SME financing, the same remedies have proposed for the past ten years²⁰.

²⁰⁾ See for example, Chertok, G de Malleray, Poulletty (2008).

The following two points can be pointed out as a cause. Firstly, while the French system is well established at the creation of companies, it seems that the support to expand business operations is insufficient. Therefore, many efforts with subsidy at the early stage are fully connected with neither a loan nor venture investment. Secondly, while the public support could not have sufficient monitoring ability to support enterprises at the later stage, entrepreneurs tend to depend on the government too much. Under these circumstances, there are still many failures as regards bank lending and equity finance.

Based on such an awareness of the issues, the following examines further the role of bank loan and another method of finance in the later phase.

a) The role of bank loan

To increase the role of bank, this section examines two aspects.

First is the "expert eye" function of bankers. To increase bankers' informational capacity, the banker should screen innovative entrepreneurs and provide information valuable that would allow them to grow. In other words, financial institutions are now required not only to respond to demand for funds from existing blue-chip companies, but also to have the ability to identify prospective loan opportunities and offer proactive proposals to smaller companies. Some economists in the region insisted that, in the past, banks responded to strong demand for funds, using an "expert eye" to monitor closely the business performance of companies and examine their ability to meet repayment obligations. However, now the bank clerks who have such a judge decreased in number especially in the region. It is important to use the expert judgment ability and to make loans to viable companies and businesses at rates appropriate to the associated risk

Next is concerned about the new lending facility. In a traditional loan, funds cannot be supplied to an innovation company because of information asymmetries and moral hazard problems inherent in the funding of a start-up firm. Bank loans are still linked to tangible guarantees. Then, the new type loan is necessary.

In some banks, new type loans are provided. For instance, Banque Populaire launched EXPRESS SOCAMA, a scheme granting loans without personal security of up to 50,000 euros, repayable over a maximum of five years²¹.

The first Risk Sharing Instrument (RSI²²) agreement signed between the European Investment Fund and Banques Populaires-Caisses dÉpargne (BPCE Group). The RSI is a state guarantee for bank loans to innovate SMEs that may not otherwise qualify for loans due to the typical high risk involved in innovative enterprises. With this initiative, banks provide loans and leases between 25 thousands euros and 7.5 million euros with a guaranteed backing. Under the European Union's Competitiveness and Innovation Program (CIP), BPCE plans to provide a total portfolio of loans worth 1.8 billion euros to around 50,000 SMEs. The bank judged that achievement of a loan target would be possible if the bank extends the object of an innovation not only in technology but in a new process.

In the future, the measuring and managing intellectual assets may play an important role in corporate value creation. Research, policy debates and corporate efforts in this area has been carried out worldwide. In France, Ahmed Bonfour conducted extensive research and developed guidelines for reporting and measurement of intangibles for the IC-dVAL (Intellectual Capital dynamic Value). However, there is not yet a common way of thinking or a common approach to intellectual asset management.

b) The role of other financing

In theory, equity finance such as venture capital takes over from public or private aid aimed at supporting start-up firms and investment. However, many empirical studies insisted that the amount of investment is weak. According to Chertok, Malleray and Pouletty, the sector suffers from a number of drawbacks: fund management teams are overly «management-oriented»; funds are too closely connected to local banks; insufficient synergies between universities and industry, and alternative financing markets are virtually non-existent.

Therefore, the realistic solution may be the practical use of finance model of Initiative Rhône-Alpes or business accelerators such as Pepites and Axeleo. Initiative

²¹⁾ This bank also launched another scheme for the same purpose in the form of a loan of maximum 100,000 euros subject to the fact that the entrepreneur has to provide 25% of the loan with a personal guarantee.

²²⁾ It is a part of FP7.

Rhône-Alpes provide interest-free loan, with no personal guarantee, The interest-free loan makes it easier to obtain an additional private bank loan. The leverage effect of loans on trust on bank loans is aboute 7 in 2012. The accelerators are concentrated on their investment at the later stages. However, the scheme has not well known. It may be realistic for them to expand the activities over many times, with accumulation of the results.

4.4 The role of central bank

In the wake of the 2008-2009 global financial crisis, central bank in France and Japan introduced new mechanism to support financing of SMEs. In implementing monetary policy, central bank usually influences the formation of interest rates for the purpose of currency and monetary control, by means of its operational instruments, such as money market operations. Accordingly, it is an unconventional measure for a central bank either to intervene in individual dealings or to promote loans to the specific condition.

France introduced credit mediation schemes in 2008 to assist SMEs to resolve their liquidity problems by maintaining or obtaining bank credit. Credit mediation schemes are addressed to SMEs whose demand for credit has been rejected by financial institutions because of the information gap between prospective borrowers and lenders. This can be done either by conducting an independent assessment and, if it is positive, submitting additional information to the financial institutions, or by bringing together SMEs and credit institutions in an effort to reconcile the differences between them. This scheme is consisting of a network of 105 local mediators and mediation panels across the country. The departmental directors of the Bank of France are the mediators and work in co-operation with Prefectures and OSEO.

The Bank of Japan introduced the Growth-Supporting Funding Facility in 2010. This facility aims at providing support for private financial institutions' initiatives to strengthen the foundations for economic growth. This measure provides long-term funds to financial institutions at a lower rate for a long period, on the condition that these financial institutions execute loans and investments that contribute to strengthening the foundations for economic growth. The interest rate is low (0.1)

percent in 2013). The maximum amount of funds available under this facility is 3.5 trillion yen. The Bank of Japan also provides separate funds for financial institutions if they perform asset-based lending up to 500 billion yen and small-lots investments and loans (up to 500 billion yen).

Financial support has carried out for more than 30,000 companies in both countries. In France, until July 2013, among 40,081 enterprises which had sought mediation, 32,408 enterprises had been accepted for mediation. And the rate of successful mediation was 62%. The credit mediation scheme has reinforced 17,490 firms of all sizes, unblocked 4.9 billion euros in credit and preserved 314,031 jobs (Figure 20). The assessment of these supports has not been carried out yet. Judging from the number of acceptance for mediation, there are many financial support for the first two years. After the Lehman shock, the financial institution became prudent in a loan by the worsening performance of the company. Since the aggravation of the loan attitude of financial institutions in France had been small, compared with the other European countries, it can be judged that this policy was effective at least at the beginning. Since 2012 the number of acceptance for mediation decreased. As the small business of an employee with 20 or less persons has few financial specialists, this scheme seems to have played the role of the consultant to such companies.

In Japan, the actual individual loans and investments totaled 35,672 transactions amounting to 5,697 billion yen from April 2010 to March 2013. Outstanding of the

Figure 20 Credit mediation in France

	the number of acceptance for mediation	the rate of successful mediation	The number of preservation of jobs
2009	16 ,904	64%	175 ,741
2010	6 <i>4</i> 27	61%	60 ,380
2011	3 ,554	59%	28 ,748
2012	3 ,162	58%	34 ,574
2013 (until July)	1 ,998	57%	20 ,587
Total	32 <i>A</i> 08	62%	314 ,031

Source: Mediateur du Credit

loan reached 3,385 billion yen. Average duration is relatively long (6.8 years). The "environment and energy business" account for the largest share, followed by the "medical, nursing cares, and other health-related business" and the "development and upgrading of social infrastructure. However, loans to support the start-up of new businesses using venture capital are only 18 billion yen (**figure 21**). While in Japan the policy is performing by central bank initiative, the further cooperation of the government and the central bank may be more important.

Figure 21 Individual investment or lending by the areas for strengthening the foundations for economic growth (in April 2010-June2013)

bil. yen; figures in parentheses indicate percentage share

Areas for strengthening the foundations for economic growth		Amount	
Research and development	322 8	(5.4%)	
Setting up a new business	17.9	(03%)	
Business reorganization	263 .6	(4 4%)	
Investment and business deployment in Asian and other countries	501 2	(8.4%)	
Science and technology research at universities and research institutions	11 3	(02%)	
Development and upgrading of social infrastructure	533 3	(90%)	
Environment and energy business	1 ,601 .5	(26.9%)	
Business for securing and developing natural resources	94 5	(1.6%)	
Medical, nursing care, and other health-related business	1 ,081 .7	(18 2%)	
Business serving the needs of senior citizens	159 .7	(2.7%)	
Business in the content creation industry	35 .9	(% % 0)	
Tourism business	163 .7	(28%)	
Regional and urban revitalization business	283 5	(48%)	
Agriculture, forestry, and fisheries business; Business linking agriculture, commerce, and industry	229 2	(39%)	
Business which supports the creation of housing stock	113 .1	(19%)	
Disaster prevention business	27 .1	(05%)	
Employment support and human resources development business	144 5	(2 4%)	
Childcare services business	34 .7	(% . 0)	
Others	325 .6	(55%)	
Total	5 ,945 .0	(100 .0%)	

Source: Bank of Japan

5. Conclusion

Rhône-Alpes has relatively had active supporting system for start-up business, especially at the early stage. The private nonprofit organizations have played the important role in supporting the founder whom neither an ordinary commercial bank nor a public institution can cover. The training before and after the creation of the companies are substantial. The administrative and other authorities, together with business organizations and other support groups, concentrate their efforts on developing an environment that supports the efforts of starting-up companies and financial institutions. There are also many bail-out packages which thought job creation as important. Furthermore, the export promotion program is also well organized. Consequently, the growth of outstanding loans has been as high as the twice of the France during the past five years.

However, the funding for financing economic growth is not necessarily high. The support to expand business operations is insufficient. The financial institutions should provide SMEs with more information related to business matching and new markets, which helps to improve the recipient firms' performance after the creation. For this reason, how to tie to loan of commercial financial institution become important issues.

Also, the system in France has been very complicated. Multi skilled team has the merit that many checks can be applied from a broad field. However, this system also has simultaneously the demerit that responsibility becomes ambiguous. The merger of the OSEO-related financial institution in 2013 may improve the efficiency of the support.

The model of Rhône-Alpes has brought Japanese regions many useful messages. To the first, it is important for the government and a private sector to cooperate more. In Japan, since there are many excellent young men, the activity of the NPO which supports new business will be important. The cluster activity which extracted the field is also effective.

Secondly, it is important for Japan to make the best use of the major trend towards globalization. To capture demand in fast-growing emerging economies, there

are more chances of coming up with new ideas and business opportunities. In order to dynamically implement a dual strategy of expanding business globally and exploring domestic demand, it is necessary to shift labor and capital smoothly to businesses with high growth potential. To mobilize resources in such a way without causing social stresses, it will be necessary to strengthen outplacement support schemes, make it easier to start new businesses, and improve safety nets. More than anything, it will be important to share a sense of values within Japanese society, which should include acceptance of the need to support for people taking on new challenges.

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