

GOVERNING OF FINANCE SUPPLY IN BULGARIAN FARMS

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Abstract

Attempt has been made to identify dominant forms and factors for finance supply in Bulgarian farms. New Institutional and Transaction Costs Economics framework is used to estimate comparative efficiency of various modes for financing of short-term and long-term activities of farms of different type and size. Study is based on a large-scale microeconomic data collected through interviews with managers of 0.5% of commercial farms in the country.

Big transitional institutional, economic and behavioral uncertainty combined with high asset specificity and low recurrence of transactions, have blocked use of market debt financing of farms. Great variety of specific private modes have emerged to overcome funding difficulties and to govern dependant transactions (internal investment, personal contacts, share investment, interlinked organization). However, vast development and maintenance costs (“free riding”) have prevented formation of effective collective credit supply forms. Large third-party (Government, international assistance, NGO) intervention has also taken place to finance (directly or indirectly) farms or to assist market and private modes of funding of farm activities.

Nevertheless, for majority of Bulgarian farms external funding is still either too expensive (high interest rate, unaffordable collateral requirements, immense paper work and bureaucratic procedures, big “side payments”) or not accessible at all. High transaction costs for “credit supply”, and “marketing”, and “contract enforcement” are the major factors limiting farm enlargement at present stage of transition. Along with further credit support, public involvement should be directed to enhancement of efficiency of State lending programs and improvement of general institutional environment (legislative framework, contract enforcement system, market infrastructure etc.).

Key words: governing of finance; transaction cost economics; transitional farm organization

Introduction

There has been a fundamental transformation of Bulgarian agriculture since 1990 when transition to a market economy started. New institutional and farming structures have evolved; and a great variety of specific modes for land, and labor, and inputs, and capital supply have emerged for governing of transactions between agrarian agents (Bachev and Tsuji, 2001b). Despite all these unprecedented development there has been no large scale study on governing forms and microeconomic factors for finance supply in Bulgarian farms. Existing publications are either at “theoretical” level, or based on unreliable and scare official data. Moreover, traditional “neoclassical” framework still dominates in analysis of various agrarian organizations.

Consequently, character and real mechanisms for management of finance supply in transitional agriculture are little known to academic community, policymakers, and public at large.

New Institutional and Transaction Cost Economics is a powerful methodology for understanding of various modes for organization of economic activities (Williamson, 1996; Bachev and Tsuji, 2001a). According to that approach the choice of one or another form for governing of capital supply will depend on: *institutional environment* – existence of real private property rights on agrarian recourses, rights of contracting, efficient system for enforcement of individual rights and contracts, other formal and informal restrictions; and on *level of transaction costs* of available (and practically possible) alternative modes for organization of finance supply. Agrarian agents will extend farm size through some form of capital supply (internal investment; reciprocal, joint or debt financing) only if it has *comparative advantages* to other modes for financing and farm enlargement (through land and/or labor supply contract, cooperation, merger, equity sell, vertical integration, off-farm investment). Ultimately the effective size (economic boundaries) of farm will be determined by the *total costs* for governing of finance supply, *and* land supply, *and* labor supply, *and* input supply, *and* marketing etc. Relative level of transacting costs will depend on: *behavioral characteristics* of agrarian agents (such as bounded rationality, tendency for opportunism, trust, reputation consideration), and on *critical dimensions* of each transactions (appropriability, asset specificity, uncertainty, and frequency).

In this paper a first attempt is being made to identify dominant forms and factors for finance supply in Bulgarian farms. The study is based on 2001 data collected through interviews with managers of 194 “typical” farms of different type and size in all major regions. The survey covers around 0,5% of commercial farms in the country¹. More than 38% of surveyed farms are unregistered “individual, family, or group farm”, almost 29% are “cooperatives”, and one-third has a status of “firm”. More than 45% of questioned farms self-determined themselves as “middle sized”, a little bit more than 38% as “small”, and 16.5% are “large” farms.

MODES OF FINANCE SUPPLY

Internal financing

The major form for financing of activities of Bulgarian farms is “*own sources*” (Table 1). All existing farms in the country have emerged after post-communist privatization of agrarian recourses and reorganization (or liquidation) of previous farming organizations (cooperatives and state firms). Start up and development of these new farm structures have been associated with large

¹ According to the Ministry of Agriculture and Forestry there are about 42000 “market oriented farms” in Bulgaria (2000 data). Most of them are unregistered farms (99.3%) cultivating 19.7% of total agricultural land. Registered 3125 cooperatives and 2275 agro-firms manage accordingly 61.6% and 18.7% of agricultural land.

farm-specific investments such as: training in farm management (education, learning by doing experience, studying outside experiences), organizational development (initiating, establishment, restructuring), building of reputation and brand name capital, finding proper specialization etc. There is no secondary market for such highly specific to a particular farm (human, intangible etc.) capital. When specificity of investment increases internal and outside financing are not alternative modes and “perfect substitute”. Therefore, equity or internal supply is the only possible way to finance such assets (Williamson, 1996, pp.184). Besides, in transitional conditions of high institutional, market, and behavioral uncertainty, most of traditional agrarian investments also happen to be in a regime of high specificity (“berried in land”). Finding out an independent market investor to finance such assets have been quite expensive (costs to find a supplier, efforts to negotiate loan terms, losses associated with meeting collateral requirements, premium interest rate or other “side payments”) or even impossible. Consequently, the internal rather than outside mode has been the most effective (or only possible) way to finance transactions supported by these assets (Bachev and Tsuji, 2001b, pp. 132).

Our survey has founds that most farms which integrate inputs supply (in-house production) with high land or farm dependency use internal procurement for finance as well – accordingly 58% of farms with internal livestock feed supply, 55% - for seeds self-suppliers, and 43% - for own buildings suppliers. At the same time, share of farms which simultaneously supply inputs and finance internally is smaller for more universal and mobile asses – accordingly 28% of animals, 6% for machinery, and only 4% for chemical self-suppliers. That proves that assets with low farm specificity tend to be financed by off-farm sources (e.g. loan contract). When specificity of transaction increases farms integrate not only finance but also input supply in order to protect dependant investments.

Table 1 Share of farms using various sources for finance supply (percent)

Type of farm	Sources for funding of short and long-term activities																	
	Own sources		Relatives, friends		Farm organisation		State program		International program		Bulgarian bank		Foreign bank		Bulgarian investor		Foreign investor	
	short	long	short	long	short	long	short	long	short	long	short	long	short	long	short	long	short	long
Unregistered	91.4	48.6	31.4	20	22.9	14.3	22.9	17.1	8.57	20	5.71	0	0	2.9	0	0	0	0
Cooperative	81.5	48.1	7.41	7.4	25.9	3.7	55.6	22.2	3.7	11.1	18.5	11.1	0	3.7	11.1	0	0	0
Firm	79.3	55.2	10.3	3.4	17.2	13.8	62.1	17.2	6.9	0	37.9	17.2	0	0	3.4	17.2	3.4	3.4
Small size	91.2	55.9	23.5	5.9	29.4	11.8	20.6	20.6	11.8	23.5	2.9	0	0	5.9	0	0	0	0
Middle size	81	40.5	14.3	19	19	14.3	52.4	21.4	4.76	4.8	31	19	0	0	9.5	2.4	2.4	2.4
Large size	75	62.5	12.5	0	12.5	0	75	6.2	0	0	25	0	0	0	0	25	0	0
Total	84.6	50.5	17.6	11	22	11	45.1	18.7	6.6	11	19.8	8.8	0	2.2	4.4	5.5	1.1	1.1

Source: personal interviews

Another reason for domination of internal mode for finance supply has been high transacting costs for *off-farm* investments. In insecure transitional environment, investment in own farm has been more or the most effective way to use available financial resources. For a big number of households internal utilization of obtained (as a result of restitution, distribution, or privatization) and often non-tradable agrarian assets has been the only option to use productively available resources (land, family labor, knowledge). That is how around 1.8 million *self-sufficient* farms have emerged in the country after 1990.

Survival of a large number of (member oriented) *production coops* has been also based on advance payments for services through system of orders (or commissioning contracts) with individual members. These cooperatives have integrated assets associated with highly specific activities to members - services to individual farms and households (e.g. food for households, feed for private animals), employment opportunities for members etc. Those are mainly assets with high indivisibility or with a great potential for economy of scale (and scope) unachievable within individual farm boundaries. Therefore, collective (joint ownership) mode has been broadly used to finance and govern such *community-specific* assets in order to overcome “missing market” situation, to avoid any unilateral outside dependency (monopoly), and to secure productive use of existing large-scale facilities.

For *commercial farms* internal investment has been the most efficient way to use available financial resources as well. In highly risky financial markets (unstable nominal interest rate, boom of banks failures) direct internal control has been the cheapest (often the only possible) form to safeguard investments from outside opportunistic expropriation. Besides, investment in internal farm-specific assets (such as entrepreneurship, know-how etc.) has been much more productive since it brings higher than market (rates of interest, shares, Government bonds etc.) return on invested specialized capital. That is why large farms and firms (which tend to perform much more effectively) invest to a greater extent their capital in own long-term assets for increasing productivity. Moreover, even farms which could find easier (“often”) necessary funds from “outside sources” make internal investment in their own short and long-term assets - 30% and 13% of surveyed farms accordingly².

Nevertheless, internal sources for financing are limited by family savings, coop members specific demand, internal profit generation etc. That puts severe restriction on effective farm enlargement through internal finance supply. When it is necessary only 15% and 41% of interviewed farms are able “always or often” to find outside supplier for their long-term and short-term financial needs. Only larger farms has a greater access to external financing for their

² However, *sharing* investment is often a prerequisite for providing outside finance by a bank, investor, Government or international program.

short-term assets as 81% of them “often” find needed means. Almost a half of surveyed farms do not use internal mode to finance long-term assets at all. Besides, some farms have been using other transactions to find additional sources for internal funding. According to our survey for all types of farms “financing other farm activities” has been a major reason for farmland sells-out and lease-out deals since 1990.

Therefore, most farms need *outside* (mix) sources to sustain their activities. However, high transacting costs restrict or even block outside finance procurement. Consequently chronic underinvestment, limit of farm enlargement, backward technological development, unsustainable exploitation of natural resources (unbalance compensation of untaken N, P, and K; crop rotation problem; water, soil and air pollutions: lands erosion etc.) all have been wide-spreading among Bulgarian farms. For instance, most of surveyed farms report they need services which they actually do not provide – accordingly 61% of farms for supply of technological knowledge and advises, 50% - for mechanization services, 81% - for maintenance of machinery and equipment, 56% - for spreading chemicals and pesticides, and 76% - for veterinary services.

Market mode

“Flexibility” of financial recourses is considerable (Furuboth and Richter, 1998, pp. 137). It is very difficult (and costly) for creditor to monitor debtors and to control if loans are used effectively and purposely. That is especially true for agriculture where investments are hidden (“berried”) in land and therefore not observable at low cost. Moreover, other major agrarian assets are very “mobile” and liquid – e.g. animals and yields could be easily consumed or untraceably sold, machinery is “on wheel” etc. Hence, using major agrarian assets for safeguard as collateral is not always feasible. Agricultural land has been rarely accepted as guarantee against losses by commercial bank for the reason of lacking real titles (until recently) and low demand for purchase of farmland. On the other hand, farmers are not enthusiastic to offer their vital non-agrarian assets (e.g. houses) as collateral since farm investments are associated with of high risk.

There have appeared many “new comers” on both sides of market (banks and farmers) and transacting parties usually do not know each other (no history of relations, trust is to be built). Costs for a first contract between unknown market counterparts are much higher than for transacting with high recurrence between same partners (where keeping relationships has a special value). Consequently, in transitional conditions of big uncertainty, high information asymmetry, and strong incentive for opportunistic behavior (survival consideration, reputation does not matter), market has failed to organize effectively credit supply transactions in agriculture (Bachev and Tsuji, 2001b, pp.135). Moreover, farms have access only to market *debt* financing since *equity market* for

trading agrarian shares have not developed at all in the country³.

Only one-fifth of farms use *commercial banks* for funding their short-term assets as share of farms using market for long-term capital procurement is twice lower (Table 1). Agro-firms and larger farms employ to a greater extent loan contracts for short-term finance supply. These farms can better meet market criteria for efficiency and for high collateral requirements. Besides, they have superior ability to face sunk costs for finding a creditor and for completing loan agreements. Foreign banks are still not active in short-term credit market.

Only registered and middle-size farms utilize long-term credits from Bulgarian banks. Obviously creditors have preferences to formal organizations which liabilities could be easier (than individual persons) challenge in court throughout a longer period of time (effective life of investments). Internal long-term credit market entirely “fails” for small farms. Large farms also do not prefer “pure” market forms for financing their long-term activities since they have access to more economical modes for external finance. Foreign banks tend to finance long-term assets of unregistered and smaller farms. That is partly associated with their policy to support these types of organizations. Another major reason is that it is much easier for a foreign agent to monitor long-term investment in smaller and less diversify farms.

For majority of farms the main reason for choosing market mode for short-term and long-term finance is “the best interest rate and terms of credit” (Table 2). It means that market (price) mechanisms govern well transactions for finance supply in these farms. Thus, majority of farms using Bulgarian commercial banks for finance procurement work according to the “rule of competition” meeting efficiency (pay-back) requirements and fulfilling their financial obligations. Another major reason for selecting that form, especially for long-term credit users, is the “lack of need to pay for successful project for financing”. That proves that market than other “hidden” price mediates effectively relations between supplier and debtor. However, for a great part of farms market form is the single (only possible) form for outside financing since “there are no other outside suppliers in the region”. Moreover, these farms have a single external lender and they are in situation of unilateral dependency. Consequently for a good number of Bulgarian farms there are only two (extreme) forms available for funding of their long-term activities – internal (own) supply and (“free”) market mode.

For a significant part of debtors of bank short-term credit “tradition” also plays an important role. Long-term customer relationships between a farm and a bank are coupled with development of relation-specific capital. It helps overcoming problems of information deficiency (asymmetry), builds confidence between partners, restricts pre- and post-contract opportunistic behavior, and ultimately minimizes overall transacting costs for financial supply. Almost 74% of short-term

³ That could be also easily explained by transaction cost reasons.

credit users and a half of long-term debtors of Bulgarian banks indicate they are able “always or often” to find external financing when it is necessary. It means that transacting costs for market mode for user-farms are relatively small. However, no borrower from foreign banks reports that it is easy to find needed credit.

Table 2 Share of farms using various finance suppliers* for a particular reason (percent)

Supplier	Term of supply	Major reasons for selecting a supplier						
		No other suppliers in region	Best interest, term	Best collateral	No paper work	No side payments	Providing other services	By tradition
Relatives, friends	short	31.3	50	0	37.5	25	0	0
	long	30	20	0	0	0	0	10
Cooperative, farm organization.	short	30	50	15	60	35	15	10
	long	40	40	0	40	40	0	0
State program	short	14.6	70.73	31.71	21.95	12.2	19.51	26.83
	long	35.3	82.35	23.53	23.53	0	0	0
International program	short	100	0	0	66.67	66.67	0	0
	long	40	40	0	40	40	0	0
Bulgarian bank	short	11.1	72.22	5.56	16.67	16.67	0	38.89
	long	62.5	62.5	0	0	37.5	0	0
Bulgarian investor	short	0	100	25	25	0	0	75
	long	0	20	20	20	80	0	0
Foreign investor	short	0	100	100	100	0	0	0
	long	0	100	100	100	0	0	0

* Debtors of foreign banks have not indicated any of these reasons

Source: personal interviews

In environment of high economic and behavioral uncertainty other *specific forms* have also emerged to facilitate agrarian credit supply transactions. *Share financing* of investments with loan from Bulgarian banks and own resources is commonly used – accordingly by 62% of long-term credit users and one-third of short-term credit users. All debtors of foreign banks match loans with internal finance as well. This special (mixed) mode of finance supply increases farmers incentives for effective use of investment, divides risk between banks and users, and economize on total governance costs. According to various clients different levels of credit volumes and equity requirements are practiced. Usually own sources are used for financing of more farm-specific assets (e.g. land and land improvement) while credit resources are directed to finance more universal and liquid assets. Internal financing is also necessary to secure effective collateral for lending contracts which is generally demanded to recover bank losses in case of investment failure.

Correlation between own and bank financing is lower for short-term credit users where 67%

of (Bulgarian) bank users do not match credit supply with internal funding. Here “future crop” is usually used as a guarantee (“yield as collateral”) for loan contracts. Besides, bank often explicitly requests “purchase of insurance” to be made by credited farms. For instance, a half of short-term debtor-farms are obliged by relevant banks to buy insurance for vegetable yield, 31% - for cereal harvest, and 11% - for milk-cows. Such insurance is also requested for one-fourth of cereals producers and one-third for cow owners which use long-term credits from Bulgarian banks. Since the risk of crop failure is immense lending banks require their collateral (future yields, milking-cows) to be protected (“insured”) from possible losses. Despite their unwillingness farmers have to pay the supplementary price for insurance supply in order to obtain needed (interlinked) bank credit. In this case risk is carried by a specialized market supplier (insurance company rather than bank) and debtor-farms are charged with extra (transaction) costs to assure bank loans.

Another interesting form which has developed is to get “free agro-market information” from crediting Bulgarian bank – correspondingly 11% and 25% of farms using short-term and long-term credit. In this case farms receive “for free” additional service supply in package (interlinked) with credit supply contract. Banks gather or buy such information since it is vital for their investment, lending etc. decision-making. They offer this information to farms since they are interested in high efficiency of their clients investments (and timely return of banks loans). Here, economy of scale for organization of agro-market information supply is realized by bank and farms get specialized information supply though (in package with) lending contracts. This governance mode provides individual farms with a service which otherwise would be very expensive (to buy from market or to supply through a special private organization) or not available at all (blocking of market information supply transactions). Despite non under lending contracts, few of surveyed farms report getting other “free services” from banks – technological knowledge and advises, advises on protecting from diseases and predators, veterinary assistance, and farm management counsels. Apparently banks farming related services will be extending along with expansion of their agrarian credit activities and number of their prospective customers.

Despite “enormous” development of agrarian credit markets since the beginning of transition, majority of Bulgarian farms still do not use market for organization of their financial supply. In some instances market mode happens to be quite expensive – e.g. “too high” interest rate and other related “payments”, lost flexibility (and efficiency) of agrarian recourses put (as collateral) under bank’s control. In other cases, market form has not been accessible at all - missing market situation. Subsequently, farms have been looking for and designing more efficient *non-market (private, trilateral, hybrid)* forms for outside finance supply.

Personal relationships

Using of “relatives and friends” as external suppliers of capital has been very popular in rural communities. It was especially common in the beginning of transition when uncertainty was so high that personal ties and trust (“bilateral reputation mechanism”) governed most of economic transactions at national and even at transnational scales (Bachev and Tsuji, 2001b, pp.128). This mode for outside supply is still dominant for a good part of “individual, family and group farms” of all size for short-term financing, and for unregistered and middle-size farms for long-term finance supply (Table 1). For a significant part of farms that is the single mode for outside funding (Table 2). Costs for negotiating and for contract enforcement are low since economic transactions are governed by “good-will” and personal trust between partners (usually as a part of broader friendships or family relationships). Often there is no formal contract writing and registration, or any collateral requirements. Disputes associated with contract execution are less likely and they are easily overcome with no substantial efforts or needs for a third party (e.g. court) involvement. Besides, a “preferential” (not rare zero) interest rate is habitually applied and there is greater flexibility for loan terms.

In certain cases such outside “support” of activities of smaller farms is a part of interlinked “direct marketing” deals. Since market food prices are quite high for the pocket of mass consumers, and there is high uncertainty of quality of “free marketed” products (e.g. high level of residual chemicals; uncertain origin etc.), many urbane households use personal and family ties to supply cheap and secure⁴ farm products through system of advance (or current) orders and financing.

Regardless of its relative efficiency “relative-friendship” form can not be a permanent mode for finance supply. There are “natural limits” of available (free, preferential) outside sources of that kind. While majority of farms (68%) using short-term crediting through this mode report they “always or often” find external sources when it is needed, no respondent confirms such state for long-term credit needs. Besides, when “farm efficiency” is not a criteria for investment decision making neither form can be sustainable in a long-run. Therefore, personal relations will be used as supplementary and eventually as a “last resort” financing mode.

Vertical integration

Share of Bulgarian farms which get a financial supply from an *outside investor* is still low – just over 5% and 6% for short and long-term financing accordingly. Most of the suppliers are Bulgarian investors. They tend to finance working capital of registered middle-size organizations (cooperatives and companies). Proportion of large agro-firms which get direct funding of long-term investment is quite big. Foreign investors finance entirely investments in middle-size

⁴ Food security is becoming important issue particularly for new rich and middle class Bulgarians.

firms.

Evolution of this specific private mode for financing of farming activities is determined by strong relation specificity of farm investments to an outside buyer of agrarian output. That is either bilateral (e.g. capacity, time of delivery etc.) or most often unilateral dependency of farm assets from a particular processor, retailer, or exporter. Such assets are usually associated with some specification of products (“special” quality or production technology, “special” origin) which is of big importance for a buyer (vine producer, meat and dairy processor, produces of caned vegetable and fruit etc.). For the reason of high specificity of such investments to a particular (single) buyer they hardly could be financed by an independent outside supplier. Here risk from opportunistic behavior in post-contract (investment) stage is enormous. Farms also would not make dependent investments unless they safeguard them with some effective governing form (long-term contract, taking economic “hostages”, or joint investment). Therefore, either underinvestment in specialized capital (hold-up), or direct external (coo) investment by interested vertical partner. Our survey shows that all farms getting such funding of their long-term investments also provide internal supply. For short-term investments this share is 25% for Bulgarian and 100% for foreign investors. Since farms are in big shortage of working capital local investors (processor, trader) traditionally provide advance payments (financing current inputs supply) for interlinked future marketing deals.

This mode for financial supply usually is a part of a larger contract(s) for governing of vertical links - reciprocal marketing, inputs and know-how supply, joint ventures etc. Participated farms get some interest, collateral etc. preferences as a part of entire deal. On the other hand, the legal form of business organization (namely “agro-firm”) becomes important since it allows to build formal partnerships (e.g. direct participation in Management Boards), brand name capital, daughter organizations etc., and to dispute them before a third party (e.g. court, Government authority, international arbitration). Not rare such farms have been initiated (or taken over) from outside (off-farm) interests and develop as part of diversification strategy of special business groups (bank, industrial etc). Nevertheless, unilateral dependency from downstream industries dominates. Only less than 9% of farms supported by Bulgarian investors point out they are “often” able to find needed short-term financial resource from outside sources (no farm gets an easy long-term external funding). Therefore, development and maintaining that vertical integration do not cost less for participating farms.

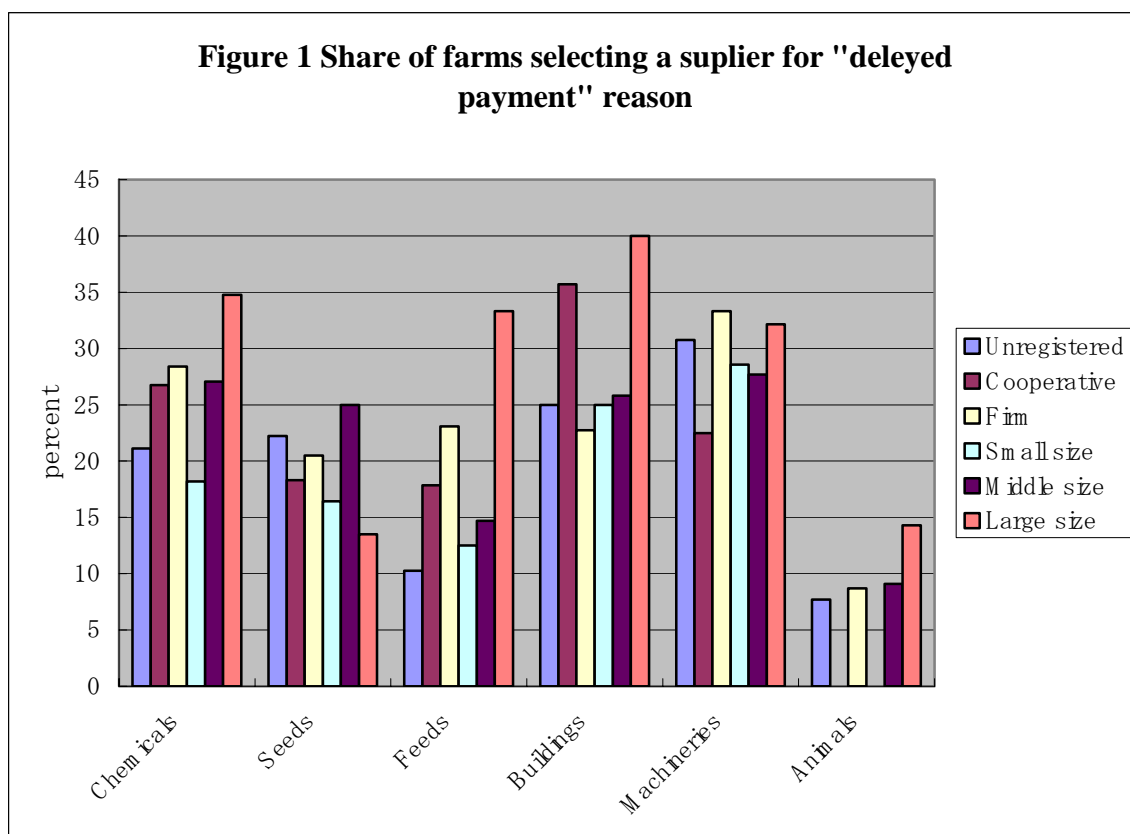
Emergence of direct financing by *foreign* investors is greatly associated with formal restrictions for foreigners to buy agricultural land. That is why such a joint venture with local firm is merely feasible way to govern foreign direct investment in farming sector. Therefore, farms which use that mode get extremely favorable interest, terms, collateral, and overall paper work treatment (like “own” finance supply). At the same time, that is not low-cost mode for outside financing – no farm credited by foreign investor testifies it is easy to obtain external financing

when it is required.

Interlinked arrangements

Agrarian agents also invent more complicated forms to mitigate problems and facilitate financial transactions. *Interlinked organization* has been widely used to govern exchange between farms and input suppliers.

For a good part of farms a major factor for choosing a particular supplier of inputs (animals are an exception) is “delayed (portion) payments” (Figure 1). In fact that mode interlinks input with credit supply. In agriculture investments in short and long-term assets usually require longer pay-back period (at least until next harvest season). Therefore, delayed or fraction payment for outside input supply represent parallel lending (free or low interest) short or long-term credit by a supplier. Such interlinked organization (“input supply plus crediting”) facilitate transactions, minimize overall costs for their management, intensify inputs supply and relationships between contragents.



Source: personal interviews

Supplying physical assets “in package” with crediting (“loan in kind”) is beneficial for farms since: it either saves own finance of significant capital investments; or economize costs for finding

and servicing outside credit (from a commercial bank or another private agent). In situation of vast shortage of own sources and high costs for external credit supply, that is often the only available form for enlargement (preserving) farms sizes.

On the other hand, suppliers have greater opportunities for low-costs credit supply. They are often large companies producing or exporting machineries, chemicals, feeds etc., and possessing significant internal finance or cheap access to outside loans (large clients with bigger possibility for guarantee, collateral; preferential interest and term conditions; effective ability for minimization of risk and confronting losses from non-payments etc.). Efficiency of supplier's credit recourses is assured by higher turnover of main products and by scale economy on transactions (e.g. funding of a single credit for financing of large sells to numerous farms). Moreover, suppliers are frequently a mediator who gets subsidized credit by chief supplier, or undertakes own preferential financing for farms.

Not rare such an interlinked supply of long-term assets in fact represent *leasing (rent)* rather than sell of these actives. That specific form for governing of transactions with inputs supply industries correspond to development of particular lease market for some types of long-term agrarian assets. Level of transacting costs for management (monitoring, control) of lease contract is determined by character of financing assets: more universal and easy to supervise assets (large machinery, building etc.) are frequent subjects of such deals. At the same time, there is no lease market for productive animals (which could be easily consumed or resold) and purchase is the major form for outside supply of these farm assets.

Collective organizations

One out of five Bulgarian farms use "*cooperative or farm organization*" as an outside finance supplier (Table 1). *Collective supply* form is more important for short-term financial needs of smaller farms and for long-term funding of not-large and non-cooperative farms. Main reasons for selecting that mode of financing are related to comparative efficiency and low costs: "small paper work and bureaucratic procedures", "best interest rate and terms", and "lack of need to pay for successful project for financing" (Table 2). However, for a good number of farms that is the "only source for outside financing" of their long and short-term activities. More than 79% of farms getting short-term funding through that mode, and a half of long-term credit users, report they "always or often" are able to find external crediting they need. Therefore, when market fails or when market procurement is quite expensive, farms need, develop, and use own special private organizations for finance supply.

Evolution of joint (collective) ownership mode for farm finance supply has been very difficult in Bulgaria. There were no traditions in farm association in the country. Transaction costs for initiation and maintenance of large-members organizations are quite high. Most of farms want

to use benefits of collective organization but to avoid development costs (“free-riding problem”). That is why private organizations of that kind emerge very slowly (through “decentralized collective actions”) and they are not sustainable in a long-run. Besides, it is not possible an effective control on cooperative management by individual members. Also incentives for equity investment are low since individual influence on policy and receiving benefit (individual use of organization, profit distribution etc.) is independent from invested capital (Cook, 1995, pp.1153). Finally, the farms which need collective support the most (potential membership) are extremely poor to contribute significantly to that financial joint venture.

A number of farm credit organizations have been initiated by private interest groups or by a third party (Government, international assistance program, NGO). Because of corruption and mismanagement some of them failed (Bank of Agrarian Cooperatives, Bank for Agrarian Credit). Recently established Federation of Rural Mutual Credit Associations has got some success partly due to the significant public support in creation, initial granting of “equity” capital, and in exterior supervision. However it has been experiencing difficulties extending its activities since exterior support was suspended. Some non-specialized in crediting farm organizations (inputs supply, marketing or producers cooperatives; professional association) also have credit programs. However, this activity is very limited and specialized - e.g. prioritized lending for breeding animal, promotion of new products, introduction of know-how etc. Most of these organizations are “too small” to provide effective farm financing - to accumulate recourses, to realize economy of scale (and scope) on specialized lending activities etc. In some cases, they also heavily rely on a third party (Government, international assistance, NGO) support to carry out their activities.

Therefore, despite the obvious advantages of collective finance supply organizations in resource accumulation, risk sharing, non for profit operations, crediting preferences, “democratic” management etc., they can hardly develop as a *pure* private mode in transitional conditions.

Trilateral and hybrid forms

The main form for external funding for majority of Bulgarian farms is “*some kind of state program for agriculture*” (Table 1). During whole transition period agrarian credit market has been blocked in the country and *Government intervention* in finance supply has made carrying farming possible. Government assistance has been predominantly directed to providing preferential credit for working capital for particular productions (mainly cereals). In last few years preferential long-term funding programs have been also made available for some priority areas (growing vineyard, purchasing machinery, modernization rural infrastructure, recovering traditional productions etc.). Most of programs come with subsidized interest rate, and facile term and collateral requirements. Schemes with partially granted-credit have also been introduced recently (part of the loan is forgiven after investments are made). Thus along with necessary credit farms

get “extra” additional financing through subsidized loan price, forgiven debt, or increased flexibility of own resources. In most cases there is a requirement for sharing investment (and risk) by acquiring farms aiming to increase incentives for efficiency. Public supply form is preferred by most of using farms because of “best interest and term” motivation (Table 2). However, best collateral and paper work associated with this mode is also important for a good number of applying farms.

Different types of farms do not have an equal access to public funds for financing of their activities. Major beneficiaries of preferential short-term credit are registered bigger farms. These farms have larger needs for working capital and they are very active looking for cheap external support. They have also got better experience in preparation of project proposals and lobbying for their successful funding. Besides, they develop special relation-specific capital with funding agencies (personal ties, good reputation etc.) and have effective capacity for “under the counter” payments (bribes) for projects approval. Finally, larger farms are more important in political and economic respects (powerful agents, major suppliers for internal and export markets) and therefore have easy access to Government support. However, larger farms do not use much this mode for funding their long-term assets. They have either greater internal capacity (profit generation, equity sell) to cover their long-term needs or effective access to cheaper outside sources for financing (private investors, banks etc.). Formal status and “registration” of farms is important for executing agency since it is easier (less costly) to check history and reliability of farms, and to enforce legal agreements and liabilities.

For a good number of Bulgarian farms state funding of long-term assets is the only way for external finance supply. This mode is vital for a significant number of farms since 53% of users of long-term and 17% of users of short-term credits from various Government programs do not have internal financing at all. For farms which get funding through that form it is a cost-effective mode to meet their financial (short and long-term) needs. All involved farms indicate they “always or often” have an access to outside financing when it is necessary.

Part of State financing comes through *hybrid modes*. In some instances, these modes are purely public – when international (e.g. European Union, World Bank, other donor) funds for farming support are match (shared) by Government contribution – e.g. SAPARTD. In other cases, public credit goes through private banks. Later hybrid mode allows minimizing overall costs for public lending since programs are executed (and risk bearded) by specialized private agents. Banks are much more efficient than public agency in servicing credit supply, in selecting clients, in

controlling contract terms, in monitoring loan repayments, in securing collateral etc⁵. In some cases risk is assumed by the state agency against acquisition of agricultural land since most banks do not accept farmland as collateral.

Other forms have also been practiced for direct or indirect public financing of farm activities: assisting farm associations and funding their activities; exemption from taxes on agricultural land and farm activities; guaranteed minimum prices for some products (e.g. tobacco); providing free agro-market information and extension service supply; public funding of agrarian research and innovation etc. These trilateral modes either assist (public funding, public in-house production, public supply etc.) important agrarian transactions which could not be carried out effectively through market or private modes; or accelerate development of “private” (quasi-public) organization for collective supply which otherwise would not emerge; or they are associated with securing additional own (internal) finance for farms. Some other instruments have also been used to facilitate market and private financial transacting. For instance, a system of “trade with receipt on deposited grain in public warehouses” has been institutionalized. That has made possible separation of moment of marketing from inputs supply transactions. Farms are now able to use their grain-receipts as a collateral and to get short-term lending for working capital while looking for the most favorable date for marketing (usually grain prices are lowest after harvesting time when need for working capital for next season is high).

A great number of smaller and mainly non-cooperative farms get outside supply from “*European Union, World Bank, another international farm program*” (Table 1). Targeting such weak (vulnerable) farm groups has been a policy priority for these donors programs. In fact, for all users of that mode of short-term finance, and for a significant share of long-term debtors, that is the single mode available for external funding. Moreover, a great share of farms using that mode does not apply (have) any internal financing of their activities – one-third and 40% for short and long-term credit users accordingly. Other major reasons for short-term users for selecting that form are simplified procedures and lack of side-payments. In addition to that the best interest rate and terms (unusually preferential) are also important factor for long-term debtors in choosing an international supplier. All participants in long-term international lending program point out there are able to find “always and often” external financing they need. Conversely, less than 12% of users of that mode are positive about their short-term needs. That is partly associated with (long-term assistance) policy priority of donor agencies, partly with low costs for supervision of effective (purposely) utilization of loans. While it is easy to monitor acquisition of new machinery,

⁵ Big number of bad dept-holders from State Fund Agriculture, or large share of unused funds from SAPARD - to name just two “good” examples for low (bad) operational efficiency of public agencies in farm crediting.

building of farm facilities, real investments in working capital are often quite expensive to verify (e.g. amount of paid salaries, fees for services, short-term inputs in land etc.).

Since the beginning of transition there have been a number of international institutional, Governmental, NGO`s etc. initiatives targeting farming in some regions (mountains, borders, less populated, undeveloped); or minority groups (Turkish, gypsies); or young (future) farmers; or segments of population (handicaps, drug users); or with specific purposes (education, extension, demonstration). All these forms for *international intervention* has come to fill the gap when internal a third party (Government, local authority, private) involvement in farm finance supply either failed (capacity and competence deficiency, lack of budget recourses) or has not been quite efficient (bad planning, mismanagement, or corruption).

TRANSACTION COSTS FOR FINANCIAL SUPPLY

Efficiency of external procurement

For different types of farms there are diverse *reasons for selecting the mode* of financial supply (Table 3). For majority of farms the most important factor for short-term supply is the immediate payments (best interest) and terms related to financing. Dominant “market” criteria are essential for good part of registered middle-size farms as well. It means that *official* price and conditions (*competition* for available market and institutional sources) govern financing supply. However, for a big fraction of farms economizing on overall transacting costs (related paper work, side payments) is also important for choice of financing mode. In addition, receiving interlinked services and tradition are crucial for larger operators. Later modes are associated with extra transacting benefits and further cost cuts. Nevertheless, for a great proportion of Bulgarian farms there is no alternative form for financial procurement. These farms do not have access to another supplier, and they either have to accept financing situation (internal restrictions, bilateral relations, or monopoly situation) or to reduce farm size.

Frequency of finance supply transactions “with a particular partner” (or “mainly with the same partner”) is quite high for all type of farms. High recurrence of relations between same parties minimizes transaction costs since there are strong mutual incentives to continue bilateral relations and self-restrict opportunism. Besides, it is efficient to invest in relation-specific capital (building good reputation, gathering information about contragent, developing trust and mechanisms for coordination, interlinking of exchanges) because such costs can be easily recovered by multiple transactions. No more than 9% of surveyed farms report they “use many suppliers” for short-term and 12% for long-term crediting. As far as short-term financing is concerned, those are mainly large farms which have bigger needs for funding. They diversify suppliers according to investment characteristics (and minimize total costs for finance supply), or simply avoid dependency from a sole lender. For long-term supply, these are predominately

middle-size firms which can not assure their growing financial needs (associated with their strategy for expansion) from a single supplier.

Table 3 Reasons for choosing source for short and long-term financing by different farms (percent)

Type of farm	No other suppliers in region		Best interest, term		Best collateral		No paper work		No side payments		Providing other services		By tradition	
	short	long	short	long	short	long	Short	long	short	long	short	long	short	long
Unregistered	34.3	28.6	45.7	17.1	5.71	5.71	34.3	14.3	31.4	8.57	0	0	2.86	8.57
Cooperative	18.5	33.3	63	33.3	22.2	3.7	29.6	7.41	14.8	3.7	11.1	0	18.5	7.41
Firm	24.1	10.3	58.6	44.8	31	17.2	17.2	10.3	27.6	24.1	27.6	0	27.6	13.8
Small size	41.2	35.3	41.2	17.6	8.82	5.88	38.2	17.6	32.4	11.8	0	0	0	5.88
Middle-seize	14.3	19	71.4	42.9	31	11.9	16.7	7.14	23.8	7.14	14.3	0	14.3	9.52
Large size	25	12.5	37.5	25	6.25	6.25	31.3	6.25	12.5	25	31.3	0	50	18.8
Total	26.1	23.9	54.3	30.4	18.5	8.7	27.2	10.9	25	12	12	0	15.2	9.78

Source: personal interviews

“State program” and “cooperative, farm organization” are chief short-term lenders for most of farms indicating they use “always or mainly the same supplier” (80% and 64% accordingly). High frequency with “Bulgarian banks” and “relatives, friends” is important for short-term financing of 39% and 28% of farms while recurrence with Bulgarian and foreign investors are only for few farms (less than 7% and 2% correspondingly). For long-term repeated financing major sources are: “Bulgarian investor” (74%) and “State program” (52%). “Cooperative, farm organization” and “relatives, friends” are significant for good number of farms with unchangeable lenders (36% and 31% accordingly) while “foreign investor” - for around 7% of them. No farm states having any repeated financial supply from a foreign bank or long-term supply from a Bulgarian bank. As far as regular (frequent) transactions between same partners is an important factor for costs saving for both sides, above figures give some ideas about most likely external creditors for further enlargement of Bulgarian farms.

Organization of finance supply from a new supplier is usually associated with large costs (to find a “good” lender, to negotiate satisfactory contract terms, to present reliable guarantee, to pay premium interests or side payments etc.). That is why no short-term supplying farm and less than 9% of long-term external finance users “change partner every time”. Mostly smaller (exclusively unregistered and firms) farms look for a new supplier since they are having greater problems to find external funding (new comer, no proper collateral, greater financing needs for modernization and extension).

“Relationships with banks and preparation of projects for crediting” takes high efforts and

time for all type of farms. More than 45% of surveyed farms report “great efforts” for credit supply, 16.5% - “moderate level”, and only less than 9% “insignificant”. For various types of farms overall transacting costs for credit supply (both for “successful” and “failed” projects) are different. Their level is greatest for most of large farms and firms (69% and 59% accordingly), for many middle-size farms and cooperatives (48% and 43%), and for a third of unregistered and small farms. Different farms have unequal needs for external finance and divers potential (skills, reputation, ties etc.) to govern credit supply transactions. Nonetheless the superior amount of these costs in larger farms, their relative level (for a unit of transaction) is smaller since they can explore the economy of scale (and scope) on credit supplying activity (e.g. investing in specialized human or relation capital for dealing with lending agencies; negotiating a package credit contract for funding of a number of activities etc.). ,

Moreover, credited farms spent different efforts to deal with various suppliers. Only a minor share (10% or less) of farms with lenders Bulgarian or foreign investors, and international program as well as long-term banks and State program, report high efforts devoted for credit supply deals. At the same time, a relatively large portion of farms with high efforts are debtors to State, and Bulgarian banks short-term crediting program (45% and 25% accordingly), and “cooperative, farm organization” financing (for short and long-term projects - 32% and 16% accordingly). Short-term financing from major suppliers involve larger transacting costs for farms because of “short-term” nature of contract (and needs for periodical recontracting). Besides, transactions with outside investors are much more smoothly given existing high bilateral (assets) dependency and strong incentives to reach a deal with minimum costs. Lastly, transacting efforts with international donors are small since these programs are strongly prioritized for particular type of farms (here “small number condition” prevails on both sides).

Transacting problems

For majority of Bulgarian farms “high collateral requirement” is the main *factor limiting financial supply* (Table 4). Most of agrarian assets are highly farm-specific and therefore less suitable to be used as a guarantee for outside (e.g. non agrarian) supplier. Market value of such property is much lower than in-farm significance. Thus external supplier wanting to safeguard lending transactions against possible opportunism (misuse, delay of return, or expropriation) demands “too high” securities from farm’s point of view. Hence such high requirement for “economic hostages” (or “unequal” exchange) restricts or even blocks credit supply contracts. Yet another critical factor for numerous farms is high price (interest and term) of credit resources. Apparently many Bulgarian farms can not use financial funds effectively according to market criteria or requirements of lending organizations.

**Table 4 Share of farms not finding needed short and long-term finance for various reasons
(percent)**

Type of farms	Shortage of agrarian credit in country		Shortage of sources in your region		Shortage of information		Requirements for high collateral		Unfavorable interest rate and terms		High level of other costs related to crediting	
	short	long	short	long	short	long	short	long	short	long	short	long
Unregistered	45.71	31.43	17.14	5.71	60	31.43	40	51.43	40	22.86	22.86	31.43
Cooperative	51.85	40.74	14.81	0	25.93	25.93	48.15	66.67	55.56	40.74	40.74	40.74
Firm	55.17	51.72	24.14	13.79	13.79	24.14	79.31	58.62	44.83	37.93	55.17	20.69
Small size	50	35.29	5.88	0	50	29.41	38.24	58.82	47.06	29.41	20.59	35.29
Middle size	50	42.86	30.95	14.29	19.05	19.05	71.43	66.67	42.86	40.48	42.86	30.95
Large size	50	43.75	12.5	0	43.75	43.75	43.75	31.25	50	18.75	62.5	18.75
Total	50	40.22	18.48	6.52	34.78	27.17	54.35	57.61	45.65	32.61	38.04	30.43

Source: personal interviews

Significant share of farms feel there is no agrarian credit available in the country. High transaction costs make difficult emergence of market and private modes for credit supply, and plentiful farms still have no access to external financing. For some part of farms shortage of information about finance opportunities is a principal reason complicating credit supply. Obviously information asymmetry is quite high in the area and for many farms is too expensive (impossible) to get necessary information for funding possibilities. Finally, some farms face enormous credit related costs (preparation of proposals, bureaucratic procedures, payments of fees and bribes etc.) which limits or make impossible finance supply transactions.

Furthermore, a number of *unwanted forms for off-farm supply* have been practicing. Delay of payments or non-payments by downstream partners (middlemen, processors etc.) has been widespread. That is in fact unwelcome (usually interest free) crediting of trading partners. For the reason of strong unilateral dependency (monopoly) and (or) high enforcement costs of contracted terms (through inefficient and expensive court system) farms has to accept that form of “subsidized marketing”. Most farms with “bad experience” in that respect either under-invest in specific capital (change or diversify production structure, decrease operations) or look for more efficient forms for governing of (marketing) transactions - deposit and advance payment, using own organization (marketing cooperative) or personal contacts, internal integration (in-farm processing), joint investment with trading partners etc. Besides, a number of undesired off-farm “financing” has been common place – e.g. funding of private activities of corrupted government officials (informal stakeholders), or special interest groups in cooperatives and agro-companies; buying “security services” of criminal firms; loosing large equity or deposits in bankrupt banks etc.

Limits of farm enlargements

There are two groups of factors which restrict increasing farms size – institutional restrains (e.g. to buy or lease-in land up to a certain limit or by certain agents, production and marketing quotas etc.), and overall costs for governing of farm transactions. Therefore, if breaking formal institutional restrictions is associated with high transaction costs (good enforcement and high penalty for offenders), and governance of transactions under a single management is very expensive (high level of internal and outside costs of transacting), farm size stays beyond technologically optimal level. Major factor limiting farm extension which is generally identified is enormous costs for enforcement (monitoring, measuring, controlling) of non-family labor contracts⁶. Consequently, even though farms had unlimited cheap access to external financing farm borders would be eventually limited by internal labor supply costs (instead of technology frontiers).

For the majority of Bulgarian farms the highest management (transaction) costs are associated with “credit supply”, and “marketing”, and “contract enforcement”⁷. Around 45% of surveyed farms devote “*high efforts and time*” for “relationships with banks and for preparation of projects for crediting”, and for “finding markets for marketing of output”, and for “contract enforcement”. Therefore, besides high governing costs for enforcement of labor contracts, other factors restricting farm enlargement of Bulgarian farms are high enforcement costs of contracts in general as well as enormous credit supply and marketing costs.

Almost two-third of Bulgarian commercial farms indicates their *intention to “enlarge farm size” in future*, including 91% of firms, 81% of large and 66% of middle-size farms, 59% of unregistered and small farms, and 46% of cooperatives. For majority of surveyed farms “*main factors for development of their farms*” relate to improvement of institutional environment – “guaranteed marketing”, “enforcement of Laws and private contracts”, “macro-economic stability”, “legislation framework”, “access to free markets” (Figure 2). Accumulated specific capital in form of “own and family experience” receives also a high priority⁸. “Enlarged access to agrarian credit”

⁶ That is why owner-operated farm is the most common form of farming organization around the world (Hayami and Otsuka, 1993, pp.11).

⁷ Share of farms with great costs for “finding inputs suppliers”, “contracting”, and “information supply” is moderate (28-32%), while for “finding land suppliers”, “relationships with administration”, “registration regimes”, “finding new workers”, and “dealing with professional organizations” is only 15-22%.

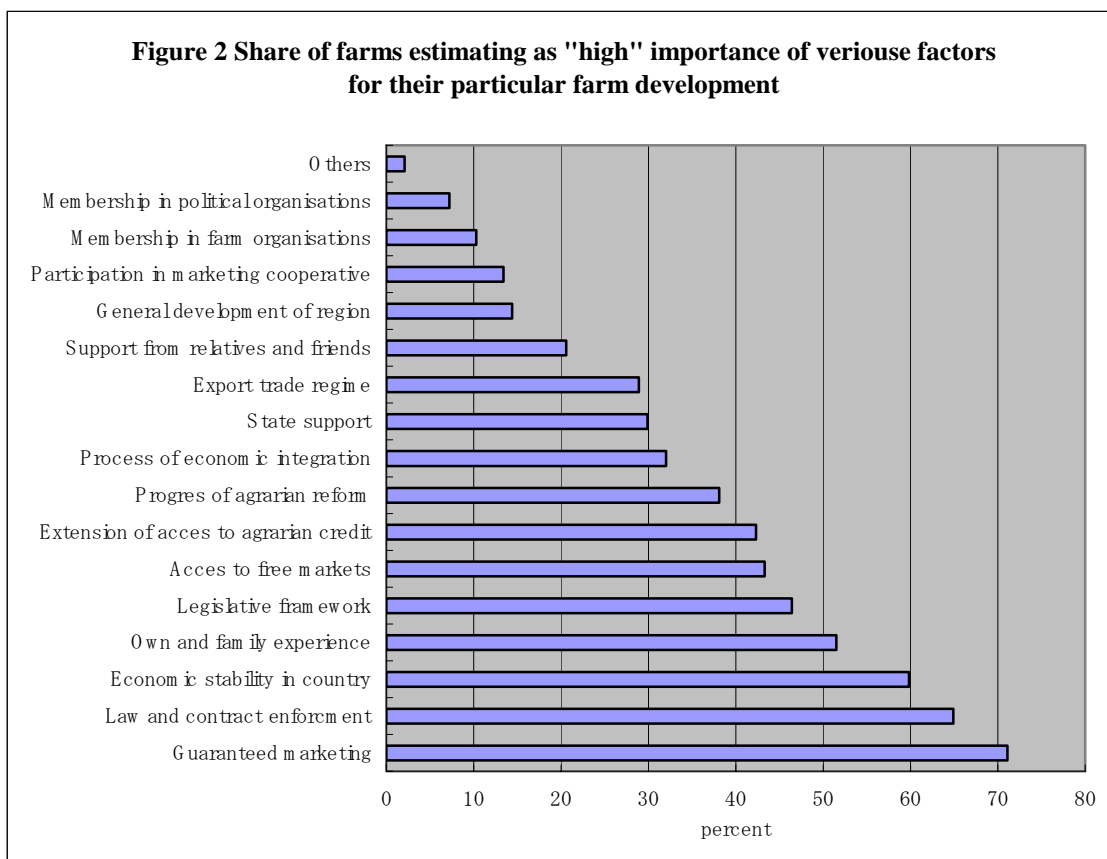
⁸ Managerial skill is the key factor for the success of farms in any institutional and market environment. Out of hundred of thousands “commercial” farms which emerged after 1990 only part survived nowadays. For many agrarian agents have become cheaper to trade (sell, lease-out) available recourses instead of internal organisation of land and labour in own farm under poor management.

is among the chief factors for farms development, and it has superior importance for large, middle-size, and registered farms. There is bigger need for cheap external finance in these farms and for that reason they appreciate more amelioration of crediting opportunities.

Our study has found no correlation between *period of creation and difficulties* farms experience *in finding source for external financing*. Proportion of farms facing problems with outside funding (which “never or rare“ find needed credit) is high and independent of date of formation of farms (recently established; with 4, 6 year or longer history). Therefore, managers success in obtaining necessary financial means depends more on their ability (personal ties, skills, other means) to find creditor rather on “natural” characteristic of farm investment (the stage of financial cycle, assets specificity etc.) or accumulated “learning by-doing experience” in credit supply.

According to our survey most of farms (75%) which buy land or repeatedly lease-in land finance their activities from own sources. Number of purchasers of farmland which are credited by external supplier is positive only for long-term debtors of international and national programs, Bulgarian banks, and “cooperatives, farm organizations” – 50%, 38%, 31% and 25% of farms accordingly. As far as frequent land-leasers are concerned, that figure is positive for short-term debtors of State program, Bulgarian banks, “cooperatives, farm organization”, “relatives, friends”, and Bulgarian investors – 59%, 26%, 18%, 10% and 8% correspondingly. External suppliers are reluctant to finance acquisition (supply) of farmland because of high farm specificity of such investment. Therefore, most feasible source for financing of further farms enlargement through land supply will be internal funding. Besides, farms credited by international and state programs, and to lesser extend by Bulgarian banks, are more likely to extend their size through additional land supply.

Similar correlation also exists between hiring labor and financing of farms. More than 81% of farms which hire labor fund their short-term activity by own sources. Only share of hiring farms credited by State program is relatively bigger (47%) while other debtors use that mode for farm extension to a lesser extend (19% from Bulgarian banks and “cooperatives, farm organizations”; 14% from “relatives, friends”; 8% from international program; 5% from Bulgarian investor; and 1% from foreign investors). Therefore, farms funded by internal sources and State program are more likely to enlarge farm size through labor supply contracts.



Source: personal interviews

Conclusions

The goal of this paper was to identify and estimate comparative efficiency of dominant forms for finance supply in Bulgarian farms. Unlike traditional textbook logic (“everybody invests in markets”, “everybody gets needed credit from markets”) there have emerged a great variety of *specific* modes for financing of transitional farming. Evolution and factors of all these governance structures could only be understood within *transaction cost minimizing* (comparative institutional analysis) framework.

Big institutional, economic, and behavioral uncertainty combined with high assets specificity and low recurrence of transactions, have blocked formation of agrarian credit markets in the country. Market “failed” to organize financial supply but agrarian agents have developed various private (non market, mixed) modes to overcome funding difficulties and to govern their dependent transactions (internal investment, personal contacts, share investment, interlinked organization). However, private sector (bilateral and multilateral private modes) also “failed” to fill the “funding gap” to the sufficient extend. Large third-party (Government, international assistance, NGO) intervention in credit supply has been necessary to make farming more efficient (or possible at all).

Different forms for direct or indirect public financing of farms have taken place, and a range of third party assistance in market and private modes has occurred.

Nevertheless, majority of Bulgarian farms still have no facile access to external funds they need for effective farm enlargement. Along with further credit support, public involvement should be directed to enhancement of efficiency of State lending programs and improvement of general institutional environment (legislative framework, contract enforcement system, market infrastructure etc.).

References

- Bachev H., Tsuji M., 2001a. Governing of Agrarian Transactions. In: Management and Rural Planning II, Kyushu University, Fukuoka, pp.185-202
- Bachev H., Tsuji M., 2001b. Structures for Organization of Transactions in Bulgarian Agriculture. Journal of the Faculty of Agriculture of Kyushu University. 46 (1), pp.123-151
- Cook M.,1995. The Future of U.S. Agricultural Co-operatives. American Journal of Agricultural Economics.77, pp.1153-1159
- Furuboth E., Richter R., 1998. Institutions and Economic Theory: The Contribution of the New Institutional Economics, The University of Michigan Press, Ann Arbor
- Hayami Y., Otsuka K., 1993. The Economics of Contract Choice. An Agrarian Perspective, Carendom Press, Oxford
- Williamson O.,1996. The Mechanisms of Governance, Oxford University Press, New York