Governance in Rural Community Development Financial Institutions

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Abstract

CDFI serve an important social function because by providing access to financial services to underserved low-income individuals and families. Understanding what governance mechanisms promote efficient use of scarce resources that these organizations possess matters because only sustainable institutions have the potential to revitalize low-income communities and change low-income individuals' lives in the long-term. The focus of this paper is on evaluating the impact of board size and composition on the performance of CDFIs. The results show that CDFIs board size has non uniforms impact of various measures of performance, while diverse boards may not be best able to guarantee that CDFIs will achieve their stated objectives.

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Introduction

Rural credit markets are undergoing significant changes. Traditional lenders such as commercial banks and the Farm Credit System still dominating the landscape of rural credit markets but face challenges from non-institutional lenders and new players such as Robobank—a global player with one of the highest credit–rating in the world. As traditional lenders streamline their lending practices to become more competitive in this challenging environment, marginal clientele such as rural low-income individuals and communities find it increasingly challenging to access financial services offered by traditional agricultural and rural lenders.

Non-traditional financial institutions, such as Community Development Financial Institutions (CDFIs), fill in the gap by providing affordable banking services and low-cost housing, by financing rural small businesses, and by offering community services that help stabilize neighborhoods and alleviate poverty. Change in the Community Reinvestment Act (CRA) that explicitly recognized loans and investments in CDFIs as a qualified CRA activity as well as improved enforcement of the CRA during the 90s have improved the ability of this industry to serve marginalized clientele (Benjamin et al., 2004). More than 1000 such organizations are currently active and a third of them operate in mainly in rural areas.

The CDFI industry consists of several organizational types who share the common mission of community development. Community development banks (CDBs), for example, are a subset of community banks, regulated by the Office of the Comptroller of the Currency and dedicated to serve the residents of and spur economic development in low-to-moderate income (LMI) areas. Community development credit unions are subset of the low-income credit unions as defined by the National Credit Union Administration (NCUA) with a specific mission of community development (Benjamin et al., 2002).

Community development venture capital funds (CDVCs) provide young small businesses with “patient capital” in the form of equity (cash infusion into a company in exchange for partial ownership) and near-equity capital (a loan that is convertible to equity) which does not require immediate repayment, as is the case with a traditional loan (Benjamin et al, 2004). Business Development Loan Funds (BDLF) lend capital to businesses and nonprofit organizations, who may not be able to qualify for conventional loans and also pursue various social goals such as promoting economic growth and job creation in low-income areas, stabilizing population declines in distressed communities, improving the availability and quality of community facilities in under-served markets, increasing the number of businesses owned by women and ethnic minorities, and promoting the growth of businesses that do not harm the environment (Caskey & Hollister, 2001).

What makes a well run CDFI matters because the disciplining role of market forces is attenuated in the CDFI industry as many CDFIs are non-profits, quasi-governmental organizations or credit unions. Thus, understanding what governance structures are most conducive to efficient use of scarce financial resources is especially important to ensuring stakeholders that these organizations are properly run.
CDFIs strive to achieve outreach and sustainability and measure returns in both financial and social terms. In organizations with dual objectives, the market forces cannot play their usual disciplining role, and the board of directors plays more important role (Holmstrom, 1999). Thus, the ability of the board to steer the organization toward achieving the double bottom line of outreach and profitability will likely impact the success of the CDFI.

This paper focuses on the role of the CDFI boards. The corporate governance literature recognizes board size and board diversity as two mechanisms that affect firm performance. The empirical analysis focuses on evaluating the impact of these two governance mechanisms. Performance measured in terms of outreach, sustainability, and efficiency is modeled as a function of board size, measured by the number of board members, and diversity, measured the proportion of women and minorities on the board, as well as key CDFI characteristics such as CDFI size, CDFI age, and risk characteristics. The results support the argument that organizations with multiple objectives, such as CDFIs, benefit from larger boards, and that board diversity may not be the best mechanism to promote both outreach and sustainability.

The rest of the paper is organized as follows: part two provides a brief overview of the CDFI industry, part three presents the framework of analysis, part four describes the data, part five discusses the results, and part five concludes.

Framework of Analysis of Governance and Performance

The unique features of CDFIs make the study of how governance affects performance challenging. First, there is significant organizational diversity in the CDFIs industry which complicates the empirical analysis. More importantly, however, CDFIs need to fulfill an outreach mission by serving poor clients while remaining financially viable (sustainable). Thus, CDFIs share characteristics of banks and of non-profits. The challenge of evaluating the effect that these organizations' governance has on performance is addressed by estimating the impact of the governance mechanisms on both sustainability and outreach, and by formulating and testing hypotheses based on insights from the literature on corporate governance, governance in banks, and in non-profit organizations.

A focus on both outreach and sustainability is necessary because there is no evidence that organizations with the best financial results are most successful in their outreach mission.[21] On the contrary, lending to small businesses is more expensive because of

[21] In the international development finance literature, many Microfinance Institutions with the best financial indicators also achieve the best outreach, but the debate on whether outreach and sustainability are substitutes or complements is still ongoing (Morduch, 2000, Navajas *et al.*, 2000).

their high level of informational opacity (Berger and Udell, 1998). Moreover, provision of financial services to low-income customers is expensive due to the higher screening, monitoring, and contract enforcement costs. Therefore, estimating the impact of governance mechanisms on both dimensions may provide insights into possible tradeoffs between outreach and sustainability.

Governance refers to the mechanisms through which investors and other providers of funds ensure themselves that their funds will be used according to the intended purposes.[22] Such control mechanisms are necessary because managers and providers of funds may have diverging preferences and objectives. For example, CDFI managers may work towards fulfilling the outreach mission but they may also have preferences for non-pecuniary rewards. In the corporate governance literature, this problem is known as the agency problem.

The board of directors is an internal governance mechanism that helps resolve the agency problems. Board members' incentives are aligned with that of the Principals (providers of funds) because of the provision that the board can be held legally responsible for failing to perform effective monitoring. In addition, in for-profit firms, board members are compensated and poor performance can lead to loss of income, but even in non-profit organizations boards offer their reputations as collateral to the public and will try to minimize the risk of losing their reputations (Handy, 1995). Although directors may have considerable incentives to slack off or get along with managers, peer policing decreases the incidence of inappropriate behavior (Fama and Jensen, 1983a; Holmstrom, 1999). Even if board members are not paid, they volunteer their time because the mission of the organization matters to them. Board members no longer committed to the mission leave, and substitution is done by the remaining board members based on mutually agreed upon criteria (Fama and Jensen, 1983b).

The recent waves of corporate scandals indicate that there is much room for improvement of the governance practices even in the best run organizations. Given that CDFIs measure returns in both financial and social terms, and given the challenges of serving the target population, the board's ability to steer the organization toward achieving the double bottom line of outreach and profitability will likely impact the success of the CDFI because the board plays significant role in organizations with dual objectives (Holmstrom, 1999).

Board Size as a Governance Mechanism

A significant part of the empirical literature has focused on the impact of board size on performance. The main idea put forward is that larger boards are less effective than smaller boards because when the board gets too big, free riding by some directors may become an issue (Jensen, 1993; Lipton and Lorch, 1992). This hypothesis is confirmed by studies of both large corporate boards and boards of small firms (Yermack, 1996;

[22] This definition is based on the definition by Shleifer and Vishny (1997) where corporate governance is defined as the mechanism through which shareholders (providers of funds) ensure themselves that they will receive maximum return on their investments.

Eisenber, Sungren and Wells, 1998). Compared to other organizations, financial intermediaries have larger boards. The impact of board size on performance in banking firms is less clear. For example, Adams and Mehran (2003) found that larger boards are less efficient monitors, while Belkhir (2004) found positive relationship between performance (ROA and Tobin's Q) and board size. Exploring the impact of board size and composition in financial intermediaries is especially important because of the relatively limited research in this area (Macey and O'Hara, 2003).

Oster and Reagan (2004) study the impact of board size in non-profit firms and put forward the hypothesis that, in these organizations, board size may need to be larger because of the additional duties of board members to supervise fundraising. However, these authors do not find evidence to support their hypothesis. On the contrary, they find that only personal charitable giving by board members increases with board size, but increase in board size reduces oversight and thus may not improve the productivity of the newly committed resources.

Given the similarities of CDFis with banks and with nonprofits, insight on the impact of board size and composition on firm performance can come from models that deal with organizations with multiple goals. Aggarwal and Nanda (2004) focus exclusively on the relationship between board size and firm performance in the contemporary corporation where managers are required to perform multiple tasks. They model the management team as a risk-averse agent who performs multiple tasks for a firm controlled by multiple principals (the board of directors) who differ in the relative value they place on each task. Aggarwal and Nanda show that smaller boards offer stronger pay-performance incentives to their managers, which may explain why these firms have higher value. Holmstron and Milgrom (1991) argue, however, that high-powered incentives may not be appropriate when the result of the agent's effort to pursue a second task (say provide more micro-loan in addition to maintaining a level of profitability and covering costs) is poorly approximated by the outcome of this task (say because the result is lower returns generated from these loans of less than $25,000 each). In this situation, higher powered incentives may only work if the two tasks are complement. Thus, lower powered incentives conditioned on the easily observable output (financial results) may be appropriate in multitask environment. The empirical results by Aggarwal and Nanda confirm that the number of social objectives (community, diversity, environment, etc.) that a firm pursues is positively related to board size but board size is negatively related to managerial incentives. Thus, larger boards may be better in multi-purpose organizations when strong managerial incentives cannot be employed. The null hypothesis to be tested then is that board size does not affect performance, and the alternative is two–sided, namely larger boards may improve or worsen performance depending on how performance is measured as well as the how well it can be observed and measured.

Board Diversity

Board diversity is another aspect of governance that has attracted attention. Traditionally, women and minorities have been underrepresented on the corporate board, especially in

banking. As a result, numerous proposals to improve board diversity have emerged. Two different reasons for board diversity are given. The first reason is the equity consideration—it should be promoted because it is fair to do so. For example, Higgs (2003) points out that, although approximately 30% of managers in the UK corporate sector are female, women hold only 6% of non-executive director positions. The second reason given for promoting board diversity is that it may help shareholder wealth maximization (Brancato and Patterson, 1999). In addition, more diverse boards may also have better relations with customers, suppliers and employees (Ellis and Keys, 2003).

Empirical results so far help make the case for board diversity in large corporations. Westphal and Milton (2000) find that board diversity improves firm performance and shareholder wealth. Carter, Simkins and Simpson (2003) also found significant positive relationships between the fraction of women and minorities on the board and firm value for the case of Fortune 1000 companies. In addition, they found that the proportion of women and minorities on boards increases with firm size. For the case of non-profits, evidence shows that women directors spend more time on monitoring activities but, because non-profit boards are very diverse, better performing organizations do not have proportionally more women and minorities on the boards (Oster and O'Reagan, 2004).

Organizational scholars have pointed out that diverse top management teams may disagree more, and the same may be true for boards. Thus, to improve board effectiveness, it may not be enough to simply increase the number of female and minority directors on the board but it may also require additional mechanisms to ensure cooperation between directors (Eisenhardt, Kahwajy and Bourgeois, 1997). Kanter (1977) suggests that when uncertainty is high, explicit pay-performance contracts are too costly and group homogeneity is more valuable. Adams and Ferreira (2004) focus on the impact of board diversity (measured as the percentage of women on the board) on firm performance and find that, indeed, firms with more diverse boards provide their directors with more pay-performance incentives. In addition, firms facing more variability in their stock returns have fewer women on their boards of directors.

Since CDFIs activities are not only characterized by high uncertainty but also by very few explicit incentives, group homogeneity may be an important mechanism to ensure cooperation between board members and effective governance. Thus, while board diversity may be desirable it may come at a cost given the high level of uncertainty that exists in organizations with multiple objectives, which is incompatible with the pay-performance incentives generated by more diverse boards. The null hypothesis to be testes is that board diversity does not affect performance versus the two-sided alternatives that board diversity may improve/ worsen some dimensions of performance.

The empirical model that will help test these hypotheses is

$$Performance_{it} = \alpha_1 + \beta_1 Board\ Size_i + \beta_2 Gender\ heteroegeneity\ of\ directors_i + \beta_3 Racial\ heterogeneity\ of\ Directors_i + \beta_4 Dummy\ board\ dominated\ by\ minority_i + \beta_5 Dummy\ board\ dominated\ by\ women_i \sum_{j=1}^{m} \beta_j\ Controls_{ij} + \varepsilon_{i,t} \quad (1)$$

where performance is measured by several indicators of performance, board size is measured by the number of board members, and a vector of controls includes organizational size, age, and leverage.

Identifying appropriate measure of CDFIs performance is a challenge. In international development finance, performance of microfinance institutions which are the international counterpart of CDFIs is measured not only in terms of financial returns but also in terms of outreach, namely, how well these institutions fulfill their mission to serve the target clientele. More specifically, performance is measured in terms of depth and breadth of outreach.[23] Depth of outreach measures the depth of poverty of clients. Provision of loans and other financial services to more poor clients is preferred. Breadth of outreach is measured by the number of loans and other financing transactions. The larger the number of borrowers among a targeted population served, the better the outreach of the CDFI. Since serving more and poorer clients is expensive, it is likely that the financial performance of CDFIs is affected by their outreach mission. Thus, while the ultimate objective of a CDFI is to provide financial services to disadvantaged populations in a sustainable manner, it is likely that the impact of the board size and composition on outreach indicators will be different than the impact of these governance mechanisms on financial performance.

A widely accepted measure of financial performance in development finance is the self-sufficiency ratio, which is the ratio of earned operating revenue over operating cost. This ratio is used as the main indicator of financial performance here.[24] Two outreach measures are used—the number of loans (including loans with equity and equity investment for non-bank CDFIs), and the proportion of low-income clients to total clients. The model will be estimated using SUR as the dimensions of performance are decided on simultaneously.

Data

The data come form two surveys conducted in 2002 and in 2003 by the CDFI Data Project. The total population of CDFIs is estimated to be about 800 to 1000 organizations (CDFI Data Project). A total of 434 CDFIs responded to the 2002 survey and 459 responded to the 2003 survey. More than half of the returned questionnaires contain missing data, which constrains the sample to a total of 468 observations. Only CDFIs with at least 50 percent rural clients were included in the sample in the sample and this results in 57 Credit Unions and 48 Community Development Loan Funds.

[23] Navajas et al. (2000) define several dimensions of outreach.

[24] Ideally we would use return on assets but the data provided does not contain information on taxes and since some CDFIs have non-profit status it is not possible to construct a good approximation of ROA.

Variables used in the analysis are defined in Table 1. Summary statistics are presented in Table 2. The average self-sufficiency ratio is 80 percent and it varies from 0.4 percent to 425 percent. Total assets vary from $39,900 to $1 billion with a mean of $24.9 million and a large standard deviation of $89.55 million. The average age of a CDFI is 25 years with a standard deviation of 20 years. The mean of the equity-to-total-assets ratio is 25 percent and the standard deviation is quite large (24 percent). This compares to the average financial intermediary capitalization in banks in the range of 12 percent.

Most CDFIs operate as Loan Funds (48 percent), and credit unions (47 percent), while only 0.4 percent are CD Venture Capital Funds and about 4 percent operate as thrifts and banks. The data also reveals that most CDFIs operate locally with nine percent operating only in the neighborhood, 10 percent operating in the city or town, and 14 percent operating in the metropolitan area. In addition, 11 percent operate in a single county, 25 percent operate in multiple counties, 12 operate statewide, only 11 percent operate in multiple states, and only 4 percent operate nation-wide. Predominant local operation is consistent with the argument made in support of relationship lending. Clearly, CDFIs focus their work locally because of the informational advantage that they have in these local markets.

In the sample, the smallest board consists of 3 members and the largest of 30. The average board size is 10.5 members with standard deviation of 4.9. Unlike in other financial intermediaries, there is significant board diversity among board members. The average board has more than 39 percent women and more than 44 percent minorities. About 17 percent of the CDFIs reported no minorities and 21 percent consisted of minorities only, while 3 percent reported no women on the board and only 1.5 percent reported women only.

Table 3 presents a breakout of board size and composition by various organizational types and forms. The data reveals that, when CDFIs are classified by organizational form, credit unions have the smallest board consisting on average of 7.9 members, while CD Loan Funds have the largest board, consisting on average of 13 board members. Thus, it seems that organizations that may have the largest number of objectives (CDLF) have the largest boards as suggested by the theory.

Turning to board racial diversity, credit unions have higher proportion of minorities on the board (59.4 percent on average) while Loan funds have 28.2. In terms of gender diversity, credit unions again have higher proportion of women (42.3 percent) while loan funds have lower proportion of females on the board (38.4 percent).

Since this level of board diversity differs significantly from the diversity in other organizations such as banks, diversity will be measures as the actual proportion of of minority (respectively women) if percentage of minority/women is less than 50 percent, and one minus the value of minority/ women if the proportion of these representatives on the board is more than 50 percent. Thus another measure of the impact of minorities and women is a dummy variable that takes the value of one if any the respective group

(minority or women) is more than 50 percent and zero otherwise. According to these measures most CDFI boards are dominated by minorities and women (Table 2).

Discussion of the Results

Board Size

The results of the estimation of (1) using SUR are presented in Table 4. The results on the impact of board size are weak. They seem to suggest that Loan Funds with larger board achieve better self-sufficiency and have larger proportion poor borrowers among their clinets (better depth of outreach) but Loan Funds with larger board also seem to have fewer clients (worse breadth of outreach). Only the last result is strongly statistically. CD Credit Unions with larger boards however, achieve worse financial and outreach results with but the results are statistically significant only for depth of outreach (proportion of low-income clients)

Thus, *Hypothesis 1* that board size does not affect performance is not rejected for all performance measures. Larger boards are associated with worse breadth of poutrecah in loan fund and depth of outreach in CD credit unions

Board Diversity

Unlike previous studies that focus on industries with lower level of board diversity and value maximization objectives and find evidence of positive impact of board diversity on the firm's value (financial performance), the results of this analysis indicate that board diversity may not be the right mechanism to promote better financial performance. For example, BDLF with boards dominated by minorities have worse self-sufficiency ratio while those dominated by women have better self-sufficiency ratios. However, BDLF with more gender heterogeneous boards have worse self-sufficiency but have higher proportion of poor clients. Credit unions whose boards are dominated by minority also have worse self-sufficiency ratios but higher proportion of low-income clients.

These results seem consistent with the results of Adams and Ferreira (2004) and indeed suggest that, in firms with multiple objectives and, thus, high level of uncertainty, group cohesion (less heterogeneity) may be important in terms of helping the board to steer the organization towards better financial results. It is also possible that other characteristics, as stakes in the organization or professional qualifications, may matter more than simply gender and racial diversity.

It is important to emphasize, however, that results indicate a positive impact of board diversity (both in terms of share of women and share of minority) on depth of outreach measured as the share of low-income clients to total clients. Since CDFIs are characterized with significant presence of women and minorities on the board, the positive impact of board diversity on outreach may indicate self-selection and endogeneity issues. Indeed, some authors have raised the issue of possible endogeneity in the impact of board size and composition (Hermalin and Weisbach, 2003). Empirical studies have found both the presence of endogeneity and its absence (Belkhir, 2004; Beiner, Drobetz, Schmid and Zimmermann, 2003). Thus it may be necessary to specify a model that would account for such choice.

The Impact of Other Variables

Results indicate that larger and older Loan Funds achieve better sustainability and breadth of outreach while BDLF with higher leverage achieve better sustainability and depth of outreach. In CD credit unions leverage and age do not affect performance but larger credit unions also achieve better sustainability and breadth of outreach. There is also evidence that CD credit unions performed better in 2003 relative to 2002.

Conclusions

CDFI serve an important social function because by providing access to financial services to underserved low-income individuals and families. Understanding what governance mechanisms promote efficient use of scarce resources that these organizations possess matters because only sustainable institutions have the potential to revitalize low-income communities and change low-income individuals' lives in the long-term. The focus of this paper is on evaluating the impact of board size and composition on the performance of CDFIs. The results show that CDFIs board size has non uniforms impact of various measures of performance, while diverse boards may not be best able to guarantee that CDFIs will achieve their stated objectives.

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Table 1 Definition of the Variables used in the analysis

Variable Name	Variable Description
Dependent Variables	
Financial Sustainability Indicators	
Self-sufficiency	The ratio of earned operating income to operating expense
Outreach Indicators	
Log(Nlns)	Number of direct financing (loans, equity and near equity transactions)
Linc_cl	Low-income clients as a share of total clients
Independent Variables	
Bsize	Number of Board Members
Pminor	Minority homogeneity of the board
Pfemale	Gender homogeneity of the board
Eq_ta	Equity-to-Total Assets ratio
TA	Total assets in $'000
Age	CDFI age, years since inception
DWomen	Dummy that takes the value of one if more than 50% of board members are women; zero otherwise
DMinority	Dummy that takes the value of one if more than 50% of board members are racial minority; zero otherwise
Year dummy	Dummy that takes the value of one if the year is 2002; zero otherwise
Pbank_liability	Bank loans as a percentage of liabilities (measures reliance on CRA related bank funds)

Table 2. Summary Statistics of the Variables

Variable	Mean	Std. Dev.	Min	Max
Dependent Variables				
Financial Results				
Self-sufficiency	0.799	0.431	0	4.3
Outreach				
Number of loans	914	5,502	2	105,910
Linc_cl	0.717	0.239	0	1
Independent Variables				
Board size	10.551	4.915	3	30
Share minority members	0.438	0.364	0	1
Share female members	0.390	0.204	0	1
Equity_TA	0.259	0.258	-0.838	0.996
TA ($'000)	24,901	89,549	39	1,068,592
CDFI Age	23.496	19.727	1	120
DWomen	0.817	0.386	0	1
DMinority	0.839	0.367	0	1

Table 3. Board Size and Composition by Organizational Type

Org. form	Board Size (No)	Minority (Share)	Female (Share)
Average	**10.551**	**0.438**	**0.390**
Thrifts and Banks			
Mean	10.6	0.474	0.164
Std. Dev.	3.8	0.349	0.116
Min	6	0	0
Max	20	1	0.455
Credit Unions			
Mean	7.9	0.594	0.423
Std. Dev.	2.1	0.410	0.223
Min	4	0	0
Max	15	1	1
CD Loan Funds			
Mean	13.1	0.282	0.384
Std. Dev.	6.3	0.232	0.184
Min	3	0	0
Max	30	1	1

Table 4: SUR of the impact of board size and composition on performance

	CD LOAN FUNDS			CD CREDIT UNIONS		
	Self-sufficiency	Linc_cl	No loans	Self-sufficiency	Linc_cl	No loans
Constant	0.611	0.442	2.904	1.085	0.889	6.56
	(0.153)	(0.155)	(0.504)	(0.212)	(0.148)	(0.859)
Board Size	0.013	0.008	-0.013	-0.036	-0.0301	-0.113
	(0.009)	(0.009)	(0.03)	(0.023)	(0.016)	(0.094)
Gender Diversity	-0.716	0.535	0.623	0.151	0.105	0.698
	(0.298)	(0.302)	(0.981)	(0.279)	(0.195)	(1.13)
Dwomen	0.093	0.141	0.223	-0.096	-0.046	-0.102
	(0.120)	(0.122)	(0.395)	(0.076)	(0.053)	(0.307)
Racial Diversity	0.728	0.449	1.155	0.036	0.119	1.208
	(0.338)	(0.342)	(1.113)	(0.257)	(0.18)	(1.041)
Dwomen	-0.709	0.178	-0.225	-0.187	0.114	-0.024
	(0.167)	(0.168)	(0.548)	(0.073)	(0.051)	(0.297)
TA (‘000,000)	0.181	0.188	0.413	5.31	-0.120	5.888
	(3.37)	(3.41)	(0.111)	(0.219)	(0.153)	(0.887)
Eq_TA	-0.576	-0.248	0.106	2.85	-0.478	-1.902
	(0.177)	(0.179)	(0.581)	(0.839)	(0.586)	(3.394)
Pbank_liability	-0.384	0.016	0.739	-0.221	-0.132	-3.54
	(0.187)	(0.189)	(0.614)	(0.235)	(0.164)	(0.953)
Age	0.017	-0.006	0.091	0.0003	0.002	-0.004
	(0.007)	(0.007)	(0.022)	(0.002)	(0.002)	(0.007)
Year dummy	0.007	-0.013	-0.385	0.118	0.079	0.072
	(0.082)	(0.083)	(0.269)	(0.066)	(0.046)	(0.267)
R2	0.37	0.17	0.34	0.37	0.17	0.34
Observations	*57*	*57*	*57*	*48*	*48*	*48*

Standard error in parentheses