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INFORMAL INVESTORS AND THE INFORMAL VENTURE **CAPITAL** MARKET IN IRELAND

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ABSTRACT

While it is widely recognised that informal investors play a vital role in the development of new businesses, extent research on the nature of informal investment activity has focussed on large economies. There is little research about informal investment in small economies, including Ireland. This paper uses data from the Global Entrepreneurship Monitor to outline the extent and nature of informal venture capital activity in Ireland and to provide an estimate of the size of the informal venture capital market in Ireland. Results suggest that Family, Friends and Colleagues provided at least €195 million to new businesses in 2011, and Business Angels invested €80 million. We find that for every $\in I$ of formal venture capital funding, there is approximately $\in S$ of informal capital funds. We conclude by highlighting implications for policy and practice.

Keywords: Informal venture capital, informal investors, business angels, Ireland

INTRODUCTION

Entrepreneurship is core to economic growth (Acs et al., 2005) and access to finance is critical to entrepreneurial activity (Bygrave and Hunt, 2005). Entrepreneurs require finance to overcome the liabilities of newness (Aldrich and Fiol, 1994). One critical source of equity is informal venture capital. Informal capital investments occur across all industrial sectors and stages of the business and they vary in size from very small to large investments (Harrison et al., 2010). Recent studies suggest that that the availability of informal investment is an important determinant of the levels of entrepreneurial activity (Bygrave et al., 2002; Autio et al., 2003; Ho and Wong, 2006); with the supply of equity capital to new ventures depending on the efficiency of the informal venture capital market (Mason and Harrison, 1995). However, in most countries it is argued that there is an 'equity gap' in that new ventures are underfinanced in terms of equity investments. For example, a study by Harding and Cowling (2006) explored the equity market for start-ups in the UK using data from



the GEM UK for 2001 to 2003, found that approximately 12% of UK start-ups have growth potential; however, only 4% acquire equity finance to grow their businesses. They concluded that in the UK there is an equity gap of between £150,000 and £1.5 million.

In the context of Ireland, prior research has focused on the formal venture capital market (Mulcahy, 2005; Barry et al., 2012). There is some evidence that demand for equity financing has increased in importance in recent years in Ireland, particularly for small firms, due to the economic crises and the restriction in the availability of bank financing (Forfas, 2012a). For example, 54% of the nonfinancial corporate sector continued to use shares and other equity investments as their primary source of finance (Central Bank, 2012), and according to the 'Access for Finance Survey', there was an increase in the number of small enterprises seeking equity finance between 2007 and 2010 (Central Statistics Office, 2011). However, existing research suggests that there is insufficient equity available in Ireland, particularly for new and small enterprises. For example, a US study estimated that in Ireland, and most other developed countries, there is insufficient informal investment to meet the needs of new businesses (Bygrave and Quill, 2006); while data from the OECD (2011) suggests that Ireland has a small visible business angel network when compared to other countries, with Ireland ranking 16th of the 26 countries included in the study (Forfas, 2012b). While there is research on formal venture capital activities, there is still relatively little understanding of informal venture capital activities (Baty and Sommer, 2002; Jones-Evans and Thompson, 2009). Given the importance of informal investment capital, the relative lack of research on the informal venture capital market in Ireland is surprising. However, this lack of information is also a characteristic of other developed economies (Mason and Harrison, 2003). One barrier to researching informal investment activity is the difficulty in identifies informal investors. Even where informal investors can be identified, they do not typically want to share information on their finances and investment activities (Mason and Harrison, 2002).

This paper seeks to address this gap by studying informal venture capital activity in Ireland. The study is focussed on three questions: how prevalent is informal investment activity in Ireland? What are the characteristics of informal investors in Ireland? And, what is the size of the Irish informal venture capital market? The paper is structured as follows. The literature section reviews current research on informal investors. This is followed by a description of the Global Entrepreneurship Monitor (GEM) data. Findings are presented on the nature and extent of informal investor activity in Ireland and in terms of an estimate of the size of the Irish informal venture capital market. We conclude with implications for policy and practice.

LITERATURE REVIEW

The most common source of funds used by an entrepreneur is their own finance. In addition to their own finance, entrepreneurs may use other sources of equity capital, including equity investments from family and friends, who typically provide small amounts of funds at the start-up stage, and



Journal of Asian Scientific Research, 2013, 3(6):630-643

business angels, who typically invest larger amounts of funds at the start-up and early stages of development of a new business, and for a select few new and young businesses, formal venture capitalist, who may provide early stage finance (Bygrave *et al.*, 2002). The funds provided by informal investors account for the second most common source of finance for entrepreneurs at the start-up phase. Research on informal investors is characterized by the use of multiple, and often inconsistent, definitions (Farrell *et al.*, 2008). This creates a number of problems. First, the absence of an agreed definition impedes growth in the discipline as it prevents comparison of results. Second, by adopting a narrow definition some studies of informal investor activity exclude many informal investors from their research (Farrell *et al.*, 2008). According to Farrell *et al.* (2008) differences in definitions reflect factors such as the timing of the investments; whether to include debt sources; whether companies make angel investments; whether to include virgin angels; whether the investee was a family member; and whether the investee was a friend.

The 'first' definition of informal investors is attributed to Seymour and Wetzel (1981), who described informal investors as "Investors who provide risk capital other than small business investment corporation, venture capital, other institutional investors, and public equity markets; those with high net worth and financially sophisticated; excludes family, friends and debt instruments". While family and friends were typically not included in early studies, later definitions (Tymes and Krasner, 1983; Harr et al., 1988; Gaston, 1989) include them or, at least do not specifically exclude them. Some subsequent studies have also removed the debt constraint (Aram, 1989; Sullivan and Miller, 1990). More recent definitions are typically more inclusive of a broader range of individuals and investments (e.g. (Kelly, 2000; Bygrave et al., 2002; Mason and Harrison, 2002). Typically these later definitions describe informal investors as private individuals who had made at least one investment in unquoted companies.

This study uses GEM definitions and classifications of informal investors. The GEM study (Bygrave et al., 2002) specifically defines informal investor as "all men and women who personally invested in a business start-up that was not their own, excluding stocks and mutual funds". The GEM study also distinguishes between types of informal investors, depending on their relationship with the entrepreneur. One group of informal investors, referred to as Family, Friends and Colleagues, are people that invest in the new business of someone that they already know. The money provided by these investors is often referred to as "love money". (Mason, 2006). A second group of informal investors, referred to as Business Angels, are people that invest in new businesses where there is no pre-existing relationship with the entrepreneur, that is, they invest in a business venture started by someone who they do not have any close relationship or family ties. This money is sometimes referred to as 'smart money' as in addition to their cash investment, the Business Angel may provide the entrepreneur with business advice, access to contacts, etc. Previous research on the characteristic of informal investors suggests that the typical profile of an informal investor is as follows: a male; high net worth; middle-aged; and, in the case of Business Angels, prior entrepreneurial experience. Prior entrepreneurial experience is often associated with



Business Angels, so called "cashed-out" entrepreneurs (Brettel, 2003; San Jose *et al.*, 2005). However, Wong and Ho (2007), find a strong similarity between the business angel and the family investment in that business angel investment in Singapore is strongly driven by friendship. They conclude that entrepreneurial networks, experience and skills are determinates of informal investor activity in Singapore. So while some research suggests typical demographic for business angels and informal investors, studies which analyse in more details their behaviour have concluded that business angles are a very heterogeneous group (Wong and Ho, 2007). (Maula *et al.*, 2005) report that attitudes, experience, and skills matter more than the demographics (income, age or education) in explaining the propensity of Finnish adults to make informal investments.

Prior academic research on the Irish informal venture capital market includes work on gender differences in informal investment activity in Ireland. In their study of gender differences in the supply of, and demand for, informal venture capital, O'Gorman and Terjesen (2006) reported few differences between men and women informal investors and their investment activity. In terms of informal investors, men and women did not differ in terms of age, education, or aspects of their personal context (including whether they perceive good opportunities, whether they perceive they have the skills to start a business, and whether fear of failure would prevent them starting a business), and the extent of their current involvement in entrepreneurial activity. With respect to the amounts their investment activity, men and women did not differ in terms of the amounts invested (mean investments of approximately €10,000 based on 2002, 2003 and 2004 data), the sector invested in, or their relationship with the investee.

Extant research suggests that the level of informal investment activity varies across countries (Bygrave and Quill, 2006) and within countries (Jones-Evans and Thompson, 2009) and therefore studying informal investment activity in the contexts of specific geographic locations is appropriate. This paper addresses the following research questions:

Research Question 1: *How prevalent is informal investment activity in Ireland?*Research Question 2: *What are the characteristics of informal investors in Ireland?*Research Question 3: *What is the size of the Irish informal venture capital market?*

RESEARCH METHOD

Research context

Ireland is an interesting context for the study of informal investment activity. Ireland is a small economy that has experienced a rapid economic development prior to the onset of the current economic crises. During the period of economic growth Ireland was characterised by high levels of entrepreneurial activity (Fitzsimons and O'Gorman, 2012). The effect of this may have been to increase the pool of informal investors as experience of entrepreneurship is a characteristic of a significant minority of informal investors. The recent economic and banking crisis in Ireland restricted the access to bank finance, with the result that there is an increased reliance by Irish



owner-managers and entrepreneurs on equity finance. As such, Ireland is a context where the pool of informal investors may have increased during the past decade, based on an increase in the number of individuals with entrepreneurial experience; while the recent economic crises and falling levels of wealth may have reduced the potential pool of informal investors.

Data sources

Identifying informal investors is difficult given much informal investor activity may not be recorded. Methods used in prior research include identifying informal investors through business angel networks, business introduction services; lists, associations, and databases, securities regulators, and principals from registry records (Farrell *et al.*, 2008). However, studying informal investment activity through these methods frequently means that some investors are not captured. An alternative, though expensive, method of sampling is random sampling of the population. This approach has the advantage that it provides good coverage of the full range on informal investor activity.

This paper uses data from the Global Entrepreneurship Monitor (GEM). GEM collects data through a representative telephone survey of the adult population. Each year data is collected from 2,000 adults. The GEM survey requests a broad array of information related to individuals' demographics, perceptions of the country environment for entrepreneurship, attitudes and awareness of entrepreneurship, as well as participation in new business activity as an entrepreneur. Reynolds et al. (2005) and Levie and Autio (2008) provide a detailed overview and discussion of the GEM methodology and approach. For information on the Global Entrepreneurship Monitor data for Ireland see the Irish annual report (Fitzsimons and O'Gorman, 2012). In this paper data is used form the GEM Irish surveys for 2006, 2007, 2008, 2010 and 2011. For some of the analysis data is pooled for several years as the prevalence of informal investment activity in the adult population is low, meaning that the actual numbers of informal investors identified for any one year is low. This approach to pooling data has been used by other researchers who have utilised the GEM data. Comparative data is drawn from several sources. First, GEM data is used to provide comparative data on the rate of informal investment activity. Second, data from the European Private Equity and Venture Capital Association (EVCA) and the Irish Venture Capital Association (IVCA) is used to compare the Irish informal investment market to the formal venture capital market. The EVCA publish an annual yearbook (EVCA, 2011), while data from the IVCA is from their website (www.ivca.ie).

An informal investor is an individual who provides funds to a business start-up. Investments in traded stocks and shares, mutual funds, etc. are excluded from informal investment activities. This data is collected in the GEM study as a response to the following questions: Have you, in the past three years, personally provided funds for a new business started by someone else, excluding any purchases of stocks or mutual funds? Descriptive data such as age and education are collected for all respondents.



The amount of investment made by each informal investor is based on the response to the following question: Approximately how much, in total, have you personally provided to these business start-ups in the past three years, not counting any investments in publicly traded stocks or mutual funds? The relationship between the informal investor and the investee is based on the response to the following questions: What was your relationship with the person that received your most recent personal investment? Was this a close family member, such as a spouse; a brother, child, parent, or grandchild; some other relative, kin, or blood relation; a work colleague; a friend or neighbour; or a stranger with a good business idea.

FINDINGS

How Prevalent is Informal Investment Activity in Ireland?

In Ireland, 3.2% of the adult population (those aged 18 to 64 inclusive) provided funds to new businesses during the three year period June 2009 to June 2011. That is, for every 100 adults in Ireland, approximately three have provided funds to a new business during the past three years. The rate of informal investment activity reported for Ireland has ranged from a low of 1.7% in 2006 to a high of 3.8% in 2010 (Table 1). For the eight years of data available data in the period 2004 to 2012, the average rate in Ireland was 2.9%. The rate of 3.2% equates to 93,000 people having provided informal investment funds at least once over the three year period. Assuming an even distribution of activity overtime, this is an estimated 31,000 people each year. An assumption of even distribution over time is reasonable based on the annual rate of informal investment activity reported in the GEM data for Ireland in the recent years (Table 1).

International comparisons underestimate informal investment activity in Ireland as the age range used to calculate the prevalence of informal investment activity in other countries is 18-99. Notwithstanding, the rate in Ireland is lower than the average for the EU countries included in the 2011 GEM dataset (4.6%), and for the US (4.8%). It is however higher than the rate in the UK (2.5%). The average amount invested in Ireland (£26,000) is similar to that for other EU countries and for the US, though it is higher than that in the UK. (Table 2)

Table-1. Informal investment activity in Ireland: 2004-2012

Year	Informal Investment Rate (% of adult population aged 18-64)
2012	3.7%
2011	3.2%
2010	3.8%
2009	n/a
2008	2.8%
2007	3.3%
2006	1.7%
2005	2.4%
2004	2.3%

Source: GEM data



Table-2. International comparisons of informal investment activity (2011)

Australia		Informal	investors	Average (mean) total invested		
Belgium 2 3 3 3 3 3 3 3 3 3		(percentag	e)	in past 3 years (Euro)		
Chile¹ 16.1 8,000 Czech Republic¹³ 6.8 12,000 Denmark¹²³ 3.2 45,000 Finland¹²³ 4.4 14,000 France¹²³ 4.6 21,000 Germany¹²³ 3.2 28,000 Greece¹²³ 3.7 47,000 Hungary¹³ 4.7 3,000 Ireland¹²³ 3.2 26,000 Japan¹ 1.3 21,000 Korea¹ 3.1 200 Latvia³ 7.1 6,000 Lithuania³ 6.1 10,000 Mexico¹ 5.6 2,000 Netherlands¹²³ 3.7 33,000 Norway¹ 4.9 71,000 Poland¹³ 3.1 18,000 Portugal¹²³ 2.2 26,000 Romania³ 6.3 13,000 Slovakia¹³ 7.8 42,000 Spain¹²³ 3.6 23,000 Sweden¹²³ 8.7 16,000 United Kingdom¹²³	Australia ¹	3.8		36,000		
Chile¹ 16.1 8,000 Czech Republic¹³ 6.8 12,000 Denmark¹²³ 3.2 45,000 Finland¹²³ 4.4 14,000 France¹²³ 4.6 21,000 Germany¹²³ 3.2 28,000 Greece¹²³ 3.7 47,000 Hungary¹³ 4.7 3,000 Ireland¹²³ 3.2 26,000 Japan¹ 1.3 21,000 Korea¹ 3.1 200 Latvia³ 7.1 6,000 Lithuania³ 6.1 10,000 Mexico¹ 5.6 2,000 Netherlands¹²³ 3.7 33,000 Norway¹ 4.9 71,000 Poland¹³ 3.1 18,000 Portugal¹²³ 2.2 26,000 Romania³ 6.3 13,000 Slovakia¹³ 7.8 42,000 Spain¹²³ 3.6 23,000 Sweden¹²³ 8.7 16,000 United Kingdom¹²³	Belgium ^{1 2 3}	3.8		38,000		
Denmark 123 3.2 45,000 Finland 123 4.4 14,000 France 123 4.6 21,000 Germany 123 3.2 28,000 Greece 123 3.7 47,000 Hungary 3 4.7 3,000 Ireland 123 3.2 26,000 Japan 1.3 21,000 Korea 3.1 200 Latvia 7.1 6,000 Lithuania 6.1 10,000 Mexico 5.6 2,000 Netherlands 123 3.7 33,000 Norway 4.9 71,000 Poland 3.1 18,000 Portugal 123 2.2 26,000 Romania 6.3 13,000 Slovakia 3 7.8 42,000 Slovenia 3 3.4 22,000 Spain 123 3.6 23,000 Sweden 123 3.7 16,000 Switzerland 4.8 42,000 Turkey 5.1 16,000 United Kingdom 123 2.5 16,000 United States 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Chile ¹	16.1		8,000		
Denmark 123 3.2 45,000 Finland 123 4.4 14,000 France 123 4.6 21,000 Germany 123 3.2 28,000 Greece 123 3.7 47,000 Hungary 3 4.7 3,000 Ireland 123 3.2 26,000 Japan 1.3 21,000 Korea 3.1 200 Latvia 7.1 6,000 Lithuania 6.1 10,000 Mexico 5.6 2,000 Netherlands 123 3.7 33,000 Norway 4.9 71,000 Poland 3.1 18,000 Portugal 123 2.2 26,000 Romania 6.3 13,000 Slovakia 3 7.8 42,000 Slovenia 3 3.4 22,000 Spain 123 3.6 23,000 Sweden 123 3.7 16,000 Switzerland 4.8 42,000 Turkey 5.1 16,000 United Kingdom 123 2.5 16,000 United States 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Czech Republic ¹³	6.8		12,000		
Finland 123	Denmark ^{1 2 3}	3.2		45,000		
France ^{1 23} 4.6 21,000 Germany ^{1 2 3} 3.2 28,000 Greece ^{1 2 3} 3.7 47,000 Hungary ^{1 3} 4.7 3,000 Ireland ^{1 2 3} 3.2 26,000 Japan ¹ 1.3 21,000 Korea ¹ 3.1 200 Latvia ³ 7.1 6,000 Lithuania ³ 6.1 10,000 Mexico ¹ 5.6 2,000 Netherlands ^{1 2 3} 3.7 33,000 Norway ¹ 4.9 71,000 Poland ^{1 3} 3.1 18,000 Portugal ^{1 2 3} 2.2 26,000 Romania ³ 6.3 13,000 Slovakia ^{1 3} 7.8 42,000 Slovakia ^{1 3} 7.8 42,000 Spain ^{1 2 3} 3.6 23,000 Sweden ^{1 2 3} 3.6 23,000 Sweden ^{1 2 3} 8.7 16,000 Switzerland ¹ 4.8 42,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ^{1 2 3} 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Finland ¹²³	4.4		14,000		
Germany ^{1 2 3} 3.2 28,000 Greece ^{1 2 3} 3.7 47,000 Hungary ^{1 3} 4.7 3,000 Ireland ^{1 2 3} 3.2 26,000 Japan ¹ 1.3 21,000 Korea ¹ 3.1 200 Latvia ³ 7.1 6,000 Lithuania ³ 6.1 10,000 Mexico ¹ 5.6 2,000 Netherlands ^{12 3} 3.7 33,000 Norway ¹ 4.9 71,000 Poland ^{1 3} 3.1 18,000 Portugal ^{1 2 3} 2.2 26,000 Romania ³ 6.3 13,000 Slovakia ^{1 3} 7.8 42,000 Slovenia ^{1 3} 3.4 22,000 Spain ^{1 2 3} 3.6 23,000 Sweden ^{1 2 3} 8.7 16,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ^{1 2 3} 2.5 16,000 United States ¹ 4.8	France ^{1 2 3}	4.6		21,000		
Greece ¹²³ 3.7 47,000 Hungary ¹³ 4.7 3,000 Ireland ¹²³ 3.2 26,000 Japan ¹ 1.3 21,000 Korea ¹ 3.1 200 Latvia ³ 7.1 6,000 Lithuania ³ 6.1 10,000 Mexico ¹ 5.6 2,000 Netherlands ¹²³ 3.7 33,000 Norway ¹ 4.9 71,000 Poland ¹³ 3.1 18,000 Portugal ¹²³ 2.2 26,000 Romania ³ 6.3 13,000 Slovakia ¹³ 7.8 42,000 Slovenia ¹³ 3.4 22,000 Spain ¹²³ 3.6 23,000 Sweden ¹²³ 8.7 16,000 Switzerland ¹ 4.8 42,000 United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Germany ^{1 2 3}	3.2		28,000		
Ireland Irel	Greece ¹²³	3.7		47,000		
Ireland Irel	Hungary ¹³	4.7		3,000		
Solvenia	Ireland ^{1 2 3}	3.2		26,000		
Korea ¹ 3.1 200 Latvia ³ 7.1 6,000 Lithuania ³ 6.1 10,000 Mexico ¹ 5.6 2,000 Netherlands ¹²³ 3.7 33,000 Norway ¹ 4.9 71,000 Poland ¹³ 3.1 18,000 Portugal ¹²³ 2.2 26,000 Romania ³ 6.3 13,000 Slovakia ¹³ 7.8 42,000 Slovenia ¹³ 3.4 22,000 Spain ¹²³ 3.6 23,000 Sweden ¹²³ 8.7 16,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Japan ¹	1.3		21,000		
Latvia³ 7.1 6,000 Lithuania³ 6.1 10,000 Mexico¹ 5.6 2,000 Netherlands¹²³ 3.7 33,000 Norway¹ 4.9 71,000 Poland¹³ 3.1 18,000 Portugal¹²³ 2.2 26,000 Romania³ 6.3 13,000 Slovakia¹³ 7.8 42,000 Slovenia¹³ 3.4 22,000 Spain¹²³ 3.6 23,000 Sweden¹²³ 8.7 16,000 Switzerland¹ 4.8 42,000 Turkey¹ 5.1 16,000 United Kingdom¹²³ 2.5 16,000 United States¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Korea ¹	3.1		200		
Lithuania³ 6.1 10,000 Mexico¹ 5.6 2,000 Netherlands¹²³ 3.7 33,000 Norway¹ 4.9 71,000 Poland¹³ 3.1 18,000 Portugal¹²³ 2.2 26,000 Romania³ 6.3 13,000 Slovakia¹³ 7.8 42,000 Slovenia¹³ 3.4 22,000 Spain¹²³ 3.6 23,000 Sweden¹²³ 8.7 16,000 Switzerland¹ 4.8 42,000 Turkey¹ 5.1 16,000 United Kingdom¹²³ 2.5 16,000 United States¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Latvia ³	7.1		6,000		
Netherlands ¹²³ 3.7 33,000 Norway ¹ 4.9 71,000 Poland ¹³ 3.1 18,000 Portugal ¹²³ 2.2 26,000 Romania ³ 6.3 13,000 Slovakia ¹³ 7.8 42,000 Slovenia ¹³ 3.4 22,000 Spain ¹²³ 3.6 23,000 Sweden ¹²³ 8.7 16,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Lithuania ³	6.1		10,000		
Norway¹ 4.9 71,000 Poland¹³ 3.1 18,000 Portugal¹²³ 2.2 26,000 Romania³ 6.3 13,000 Slovakia¹³ 7.8 42,000 Slovenia¹³ 3.4 22,000 Spain¹²³ 3.6 23,000 Sweden¹²³ 8.7 16,000 Switzerland¹ 4.8 42,000 Turkey¹ 5.1 16,000 United Kingdom¹²³ 2.5 16,000 United States¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000		5.6		2,000		
Norway¹ 4.9 71,000 Poland¹³ 3.1 18,000 Portugal¹²³ 2.2 26,000 Romania³ 6.3 13,000 Slovakia¹³ 7.8 42,000 Slovenia¹³ 3.4 22,000 Spain¹²³ 3.6 23,000 Sweden¹²³ 8.7 16,000 Switzerland¹ 4.8 42,000 Turkey¹ 5.1 16,000 United Kingdom¹²³ 2.5 16,000 United States¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Netherlands ^{1 2 3}	3.7		33,000		
Poland ¹³ 3.1 18,000 Portugal ¹²³ 2.2 26,000 Romania ³ 6.3 13,000 Slovakia ¹³ 7.8 42,000 Slovenia ¹³ 3.4 22,000 Spain ¹²³ 3.6 23,000 Sweden ¹²³ 8.7 16,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Norway ¹	4.9		71,000		
Portugal ¹²³ 2.2 26,000 Romania ³ 6.3 13,000 Slovakia ¹³ 7.8 42,000 Slovenia ¹³ 3.4 22,000 Spain ¹²³ 3.6 23,000 Sweden ¹²³ 8.7 16,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Poland ^{1 3}	3.1		18,000		
Romania³ 6.3 13,000 Slovakia¹³ 7.8 42,000 Slovenia¹³ 3.4 22,000 Spain¹²³ 3.6 23,000 Sweden¹²³ 8.7 16,000 Switzerland¹ 4.8 42,000 Turkey¹ 5.1 16,000 United Kingdom¹²³ 2.5 16,000 United States¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Portugal ¹²³	2.2		26,000		
Slovenia ¹³ 3.4 22,000 Spain ¹²³ 3.6 23,000 Sweden ¹²³ 8.7 16,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Romania ³	6.3		13,000		
Spain ¹²³ 3.6 23,000 Sweden ¹²³ 8.7 16,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Slovakia ¹³	7.8		42,000		
Sweden ^{1 2 3} 8.7 16,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ^{1 2 3} 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Slovenia ¹³	3.4		22,000		
Sweden ^{1 2 3} 8.7 16,000 Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ^{1 2 3} 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Spain ¹²³	3.6		23,000		
Switzerland ¹ 4.8 42,000 Turkey ¹ 5.1 16,000 United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Sweden ¹²³	8.7		16,000		
United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Switzerland ¹	4.8		42,000		
United Kingdom ¹²³ 2.5 16,000 United States ¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	Turkey ¹	5.1		16,000		
United States¹ 4.8 24,000 OECD average 4.7 33,000 EU-15 average 3.9 28,000	United Kingdom ¹²³	2.5		16,000		
EU-15 average 3.9 28,000	United States ¹	4.8		24,000		
EU-15 average 3.9 28,000	OECD average 4.7			33,000		
		3.9		28,000		
		4.6		23,000		

¹Member of OECD, ²Member of European Union- EU15, ³ Member of

European Union- EU27. Source: GEM 2011 data

What are the Characteristics of Informal Investors in Ireland?

Is there a typical informal investor in Ireland? Given that many informal investors are related to the entrepreneur, there is variety in the profile of informal investors. However, there are some common characteristics associated with informal investors. Informal investors in Ireland are typically male, have a high level of education attainment, and an above average income (Table 3). A significant minority, at least one in five informal investors are currently active as an entrepreneur in that they are either starting a business or are currently the owner-manager of a business that they started in the past. This most likely results in an under-estimate of the extent of prior experience among



Journal of Asian Scientific Research, 2013, 3(6):630-643

informal investors, as the data on prior experience is restricted to those that are currently engaged in entrepreneurship.

Table-3. Characteristics of Irish informal investors

		Percentage of informal investors
Gender	ſ	
-	Male	64%
-	Female	36%
Educat	ion	
-	Pre-primary or lower secondary education	4.6%
-	Upper secondary education	20.9%
-	Post-secondary non-tertiary education	14.9%
-	First stage of tertiary education	59.5%
Housel	nold income	
-	Bottom $\frac{1}{3}$ of all households	15.5%
-	Middle ¹ / ₃ of all households	34.0%
-	Top $^{1}/_{3}$ of all households	50.4%
Age (n	nean)	38 years
-	18-24 years	15.3%
-	25-34 years	30.3%
-	35-44 years	18.4%
-	45-54 years	25.2%
-	55-64 years	10.8%

Source: Irish GEM data (2006, 2007, 2008 and 2010).

A detailed breakdown of Irish informal investors and their relationship with the entrepreneur they invest in suggests that approximately half (51%) of informal investors invest in a new business started by a relative (43% described as a 'close family relative' and 8% described as 'some other relative); 35% invest in a new business started by a friend or neighbour; and 4% invest in a new business started by a work colleague (Table 4). Of all informal investors, 10% invest in a new business started by an individual with whom they have no previous relationship. Applying these rates to the absolute numbers presented above, suggests that the vast majority of informal investors have a pre-existing relationship with the entrepreneur. That is, in 2011 approximately 28,000 of the 31,000 informal investors were so called 'love money' investors. Approximately 3,000 of the 31,000 informal investors are Business Angels.

Most informal investments are for relatively small amounts. Eight out of every ten (80%) informal investors provided funds of less than &25,000 (Table 4). Two out of every ten (20%) invest more than &25,000. The median investment amount is &26,000, while the mean investment amount is &26,000. The low median reflects the fact that many investments are quite small. Informal investors typically expect to get their investment amount back within 5 years (81.6%), with 19.7% expecting repayment of their investment within 1 year (Table 4). A very small percentage, 7.9% expect 4never to receive repayment of their investment.



Table-4. Relationship to investee, investment amounts and payback expectations

		Informal investors
Relation	onship between informal investor and entrepreneur ¹	
-	Close family member	43%
-	Some other relative	8%
-	A work colleague	4%
-	A friend or neighbour	35%
-	Business angel	10%
Media	n investment Amount	
-	€1 - €10,000	60%
-	€10,001 - €25,000	20%
-	€25,001 - €50,000	10%
-	€50,000+	10%
Payba	ck Expectations	
-	6 months	4.4%
-	1 year	15.3%
-	2 years	12.6%
-	5 years	49.3%
-	10 years	8.2%
-	20 years +	2.3%
_	Never	7.9%

Source: Irish GEM data (2006, 2007, 2008 and 2010).

What is the Size of the Irish Informal Venture Capital Market?

The extent of informal investment in Ireland is unknown. The majority of informal investors provide relatively small amounts of money to businesses started by a family member, a friend or a colleague. However, given the number of informal investors the total amount of informal venture capital funds is high. If the 28,000 Family, Friends and Colleagues provide the median ϵ 7,000 to a start-up, this accumulates to an annual provision of ϵ 195 million; while if they provided the mean investment of ϵ 26,000, this accumulates to an annual provision of ϵ 728 million (Table 5). If the 3,000 Business Angels invest the median amount of ϵ 7,000, the total annual investment would be approximately ϵ 21 million; while if they invest the mean of ϵ 26,000, the total annual Business Angel investment is ϵ 80 million (Table 5).

There is a significant (nearly a factor of four) difference in estimates of the total size of the informal investment activity depending on whether the mean or medium is used in calculating the size of the market. In estimating the size of the market the total sample means and medians is used given the low absolute number of Business Angels in our sample (they represent just 10% of informal investment activity in our data). In providing an estimate of the size of the informal investment market the median is used for the Family, Friends and Colleagues category of informal investor and the median amount is used for the Business Angel category. With regard to the

¹ 2011 data. Results based on pooled data for 2006,2007, 2008 and 2010 is as follows: Close family member 44.2%; some other relative 5.3%; a work colleague 5.3%; a friend of neighbour 32.9%, business angel 8.6%; other 3.6%.



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Family, Friends and Colleagues, the use of the median is appropriate given the very large number of small investments. However, the use of the median provides a conservative estimate of the total amount of Family, Friends and Colleagues investments because by using the median (ε 7,000), and not the mean (ε 26,000), we under count the fewer much larger investments by Family, Friends and Colleagues. The mean is used in the case of Business Angels because evidence from the UK suggests that investments by Business Angels are much higher (for example, one study from the UK estimated that investments by Business Angels associated with Business Angel networks averaged nearly Stg£200,000) (Mason and Harrison, 2010). Using the mean investment of ε 26,000 suggests an annual investment by Business Angels of ε 80 million. Following this logic, combining these figures suggests that approximately ε 275m of informal investment funds are invested each year, though the range could be from as low as ε 216m to a high of ε 808m. The ε 275m estimate represents about 0.2 of a percentage point of GNP (Central Statistics Office, 2012). This is a conservative estimate as our data only includes informal investment activity for those in the 18 to 64 age range, excluding investments by those aged 65 and over.

Table-5. Informal investments in Ireland (2011)

Investor Category	Number of investors (p.a.)	Total based on median investment (€7,000)	Total based on mean investment (€26,000)
Family, Friends, Colleagues	28,000	€195 m (90.3%)	€728 m (90.1%)
Business Angels	3,000	€21 m (9.7%)	€80 m (9.9%)
Total	31,000	€216 m (100%)	€808 m (100%)

Source: GEM data

The European Private Equity and Venture Capital Association (EVCA) reported that seed, start-up and later venture stage venture capital investments in Irish firms by private equity firms totalled €55 million in 2011. The 2011 figure relates to investments in companies in Ireland regardless of the location of the private equity firm (EVCA Data). This €55 million of formal venture capital was invested in just 67 firms. According to the Irish Venture Capital Association (IVCA), 82 companies in Ireland (this includes Republic of Ireland and Northern Ireland) raised €104.9million in 2011. The Irish Venture Capital Association (IVCA), reports that in total 159 Irish technology companies raised €274m from investors in 2011, of which 38% (€105) was seed/early stage investments. A much higher percentage of venture capital money was in seed/early stage investments in 2011 compared to previous years This compares to seed/early stage investments of €53.6m (in 63 companies) in 2010 and with €71.2m (in 65 companies) in 2009.

In total, this data suggests the investment of funds in new businesses in Ireland in 2011 was at least \in 330 million (Table 6). For every \in 1 of formal venture capital funding in Ireland, there is more than \in 5 of informal investment. More specifically, for every \in 1 of seed/early stage formal venture capital funds, there is about \in 1.5 of Business Angel funds, and \in 3.5 of Family, Friends and Colleagues funds.



Table-6. Informal and formal investments in Ireland (2011)

Investor Category	Tota (Euros)	Total (%)
Family, Friends, Colleagues	€195m	59%
Business Angels	€80 m	24%
Formal Venture Capital Funds	€55 m	17%
Total	€330 m	100%

Source: GEM data, IVCA, EVCA

DISCUSSION AND CONCLUSIONS

Prior research on equity finance in Ireland has focussed on the formal venture capital market and to a much lesser extent on aspects of Business Angel investment (Stewart, 1992; Mulcahy, 2005; Barry et al., 2012). This paper extends this research by focussing on the informal venture capital market. Findings and contributions are as follows. First, results suggest that in terms of the question, how prevalent is informal investment activity in Ireland, about 3.2% of the adult population in Ireland were active as informal investors in that they provided funds to a start-up during the previous 3 year period. While the number of individuals providing funds to new businesses appears high, informal investment activity is lower in Ireland than it is in the US and in many other European countries. Second, in terms of the question, what are the characteristics of informal investors in Ireland, the data suggests that most informal investors can be classified as Family, Friends and Colleagues, with only approximately 10% of informal investors classified as 'Business Angels'. This translates to an annual estimate of 28,000 'Family, Friends and Colleagues' and about 3,000 Business Angels providing funds in Ireland in 2011. At least one in five of all informal investors are currently entrepreneurial active, in that they are either starting or currently managing a business that they started previously. Third, in the context of the question, what is the size of the Irish informal venture capital market, the data suggests that informal investors, such as Family, Friends and Colleagues, provided at least €195 million to new businesses in 2011; while Business Angels invested approximately €80 million. This compares to the €55 million of Formal Venture Capital funds (seed/start-up/later-stage venture capital) invested in Irish firms in 2011. Therefore, informal venture capital funds exceed formal venture capital funds in Ireland. For every €1 of formal venture capital funding, there is approximately €5 of informal capital funds.

The implications of these results for policy makers in Ireland are that much informal investment activity may be outside existing programmes. Irish policy makers have been active in supporting both the development of the formal venture capital market, and in more recent years, the development of Business Angel investments. In terms of Business Angel investments, Irish policy makers have supported the development of a more organised provision of funds from Business Angels by supporting the development of syndicates. Syndicates overcome some of the drawbacks that characterise the informal venture capital market (Mason, 2006). They also provide Business



Angels with the opportunity to learn and share knowledge with peers. In 2011 IntertradeIreland, Business Innovation Centres and the *Halo Business Angel Network (HBAN)* assisted 29 firms to raise €12 million (Forfas, 2012b). The main sectors that attracted investment were ICT, Mobile, and Healthcare. Given the importance of the Family, Friends and Colleagues category of informal investors, both in terms of the number of businesses that receive such funds and the total absolute size of the funds provided, it is perhaps surprising that relatively little policy attention is directed towards these investors.

This research has several implications for entrepreneurs. First, entrepreneurs should look to family and friends for small amounts of financial support, as most informal investors provide very small amounts of money and are typically known to the entrepreneur. Given that the amounts of funds available from informal investors are frequently small, entrepreneurs should minimise the amount of funds needed to get their business started. Second, for those who seek funds beyond the Family, Friends and Colleagues category of informal investors, there is a smaller pool of potential investors, though the average investment is higher. The absolute level of funds available from Business Angels and the formal venture capital markets is smaller than the amount available from Family, Friends and Colleagues. Formal venture funds are not available to most start-ups as typically formal venture capital is only available to the small number of start-up with the potential to scale very quickly.

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643