

**VENTURING FROM VANCOUVER?:  
THE CHANGING SIGNIFICANCE OF LOCATION FOR TRADERS,  
UNDERWRITERS, AND BROKERS OF JUNIOR FINANCIAL EQUITIES**

by

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## ABSTRACT

The thesis responds to Richard O'Brien's pronouncement that geography is rapidly losing purchase as an explanation of the structure of global financial markets. I suggest that O'Brien is in error. Drawing on the work of Gordon Clark and Kevin O'Connor, I argue that financial products have logical, geographical outcomes, predicated on different informational requirements. I consider one particular financial product, venture capital. Interviews with financial professionals in Vancouver demonstrate that venture capital has a distinctly local geography of production. Market participants cluster in Vancouver to maximise access to, and interpretation of, information regarding venture companies. Contrary to the obliteration of geography, I argue for its continued importance, represented by the existence of smaller financial hubs, such as Vancouver, and which act as information niches for specific financial products.

Further, the thesis suggests that the *services* involved in the production of venture capital also have distinct geographies. Services have logical locations, dictated by their informational requirements. I consider three services involved in the production of venture equities: trading, corporate finance, and sales. Contrasting the periods 1970-1990, and 1990 to the present, I argue that, because of their informational compositions, the three services had divergent experiences of technological and regulatory change. In the period 1970-1990, all three functions were informationally bound to the city. Traders and salespeople required up-to-the-minute market data, and this demanded a presence near the Vancouver Stock Exchange. Financiers prioritised information about promoters and

directors of venture companies, and assembled this through face-to-face interaction in Vancouver. Since 1990, however, the geographies of trading, corporate finance, and sales have been re-made. As up-to-the minute market information was automated and rendered almost ubiquitous, trading and sales functions benefited from increased locational flexibility. Traders centralised, while salespeople decentralised, locating closer to their clients. The location of financiers, by contrast, changed very little. Still dependent upon interaction with directors of venture companies, financiers find a Vancouver location most convenient.

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## **INTRODUCTION: INFORMATION, LOCATION, AND THE FINANCIAL FIRM**

### **Prologue**

In the summer of 1998, between my second and third years of undergraduate study, I applied for an internship with UBS Warburg, a global investment bank. I knew very little about investment banks, or finance in general. The explanation of derivatives in an economic geography course had baffled me. Nonetheless, I was invited, along with approximately one hundred others, to join the bank for a ten-week placement.

In making my application, I was faced with two decisions. The form asked you to specify the product area in which you wanted to work. The options were: equities, foreign exchange, and fixed income. You further had to select one of four services: sales, trading, research, or corporate finance. My choices were entirely random. I put an "X" by foreign exchange sales.

On day one I walked onto a trading floor for the first time. I was initially placed with the continental team, that sold foreign exchange to clients in France, Spain, and Italy. During my time in foreign exchange (FX) sales I "circled the globe", moving between desks that serviced Scandinavian, US, and UK clients. Later, I spent time in fixed income sales,

where teams were also divided geographically. A brief spell in the commodities department (a small department subsumed within FX) later ensued, and I worked with salespeople who specialised in gold and in oil.

One frightening morning, I sat with FX traders. Fourteen people faced each other, seven on each side of a desk cluttered with monitors. This was archetypal “finance” – phones ringing, exuberant punches in the air, objects thrown down in frustration at missed trades. The sales desks in a FX department are hectic, but the traders are in another league.

By the end of the summer, I had learnt a great deal about the internal machinations of an investment bank. I had also learned that foreign exchange markets were not for me. Not a risk-taker by nature, the pressure to make split-second decisions with large sums of money worried me. The bank asked me back for another summer, and I accepted on the proviso that I be transferred to the more sedate world of equity research. I (correctly) hoped that a research department would conduct longer-term, project-based work. With teams organised by product, I worked with the “food” team, producing research reports on major European food corporations for internal and external clients.

In total, I spent twenty weeks with an investment bank. During this time, I worked in many different departments (thankfully bypassing the corporate finance department, renowned for its “all-nighters”). In doing so, I encountered a bewildering array of styles and ways of “doing business”. Although different departments interacted, they mostly

operated within their specific niche. Teams worked different hours, with varying levels of intensity, drawing on different resources to do their job effectively.

As a result of my experiences, the diversity within investment banks was one of the things that struck me most forcefully. The second was the volume of information that flows into such organisations for processing and further dissemination. As an intern, with no license to sell or trade, I had time to explore the resources available to financial professionals. Every member of staff had at least one computer - many had three or four. Through various monitors, traders accessed vast databases and trading systems. Everyone had a customised Reuters screen that catered to their precise information requirements, filtering news and prices for areas of specific interest. Phones were constantly in use in the search for more up-to-date information. "Chat" channels facilitated instantaneous communication with other UBS Warburg employees in London, and around the globe. Entire research departments analysed information, issuing daily, weekly, monthly, and quarterly reports. Television screens were anchored all over the workspace, tuned to financial news (or, more commonly, to the latest sports event). On a more social level, teams took clients for dinner, or to sporting events. Such events maintained good relations, but also yielded potentially valuable information.

These two impressions of my time with a global investment bank - the diversity of products and services, and the vastness of information flows - are the key ideas that shape this thesis. Following my second summer at the bank, I moved to Vancouver to pursue a Masters degree in financial geography. As I engaged with the work of theorists such as

Richard O'Brien, Gordon Clark, and Kevin O'Connor, it became clear that considerable theoretical attention has been devoted to precisely these two issues. In relocating to Vancouver, I had the opportunity to study these ideas in a new context. Eschewing the global investment bank, this thesis pivots around a very different institution - the Vancouver Stock Exchange, a venture capital marketplace.

### **Theoretical debates and the Vancouver context**

One of the first texts I picked up when I arrived in Vancouver was Richard O'Brien's provocative publication, Global Financial Integration: The End of Geography (1992). As the title implies, O'Brien argues that integration of both financial markets and financial regulations is eroding the relevance of geography. Technological advances and deregulation are resulting in seamless markets. Financial institutions can increasingly conduct business from any location they choose. Money is escaping the "confines of geography" (O'Brien, 1992: 2), and hence eroding the traditional basis of Geography as a discipline.

I thought about this pronouncement in the light of my experience with UBS Warburg. O'Brien, it seemed to me, is accurate with respect to foreign exchange markets. A global "book" or position in all world currencies is passed between three centres – London, New York, and Singapore – over a twenty-four hour period. Traders in one centre hand over the responsibility to colleagues in another time-zone. Equity markets, however, have a

distinctly geographical division of labour. At UBS Warburg, European equities are coordinated exclusively from Europe. London acts as head office, but draws in expertise on French equities from the Paris office, and so forth. Similarly, US equities are the domain of the US office.

In the light of these observations, the work of Gordon Clark and Kevin O'Connor (1997) attracted my attention. They argue that O'Brien ignores the *diversity* of financial products. Geography does matter, Clark and O'Connor claim, because different financial products have diverse informational requirements. They construct a typography of financial products to illustrate this. Information on "transparent" products is ubiquitous. Such products (e.g. foreign exchange, or gold) are "global", or tradable from anywhere. "Opaque" products, by contrast, depend on national, or even local, information sources. In assembling a real estate trust, the designer locates in close proximity to the properties, maximising access to information. Geography has not been obliterated - national and regional financial hubs flourish alongside global centres, acting as information niches for specific financial products.

Clark and O'Connor's work goes some way towards explaining the locational distributions of the various products I encountered at UBS Warburg. Trading of a transparent product, such as foreign exchange, is organised solely around time-zones. Teams researching more opaque products, such as equities, are organised nationally to maximise access to information. However, Clark and O'Connor's thesis also suggested how I might theorise the development of Vancouver as a financial centre. Junior, or

venture, capital, Vancouver's specialism, has many "opaque" qualities. It seemed to me that information about local ventures might be most accessible in the city. If the equity of large corporations is traded and researched on a national scale, perhaps there is a local geography to the equity of small, fledgling corporations?

With respect to this thesis, then, my overarching research question is this: *How does geography matter for a financial product such as venture capital?* Is the production of an opaque product such as venture capital tied (informationally) to place, as Clark and O'Connor suggest? Is a Vancouver location an informational prerequisite for those involved in the production of venture capital? To address such questions, I interviewed financial professionals in the Vancouver area. If these interviews added empirical support to a number of Clark and O'Connor's assertions, they also led me to think about their work in more critical terms. Most importantly, it emerged that their analysis may benefit from a further layer of disaggregation. While sensitive to the informational constitutions of various financial *products*, Clark and O'Connor are neglectful of the different financial *services* that comprise what they loosely term "the production process" (1997: 89). Indeed, on reading their paper, it is never clear what comprises "production". At times, "production" is juxtaposed with the processing and distribution of financial products (1997: 89), but on other occasions, it appears to encompass a far broader sweep of activities.

If attention to the various services involved in the production of venture capital markets is scant in Clark and O'Connor's account, it was a dominant theme in interviews with

market players. On many occasions, interviewees delineated between sales, trading, and corporate finance activity. Furthermore, if financial products have different informational contents, so too may the various services. Direct interaction with venture companies may be far more significant for corporate financiers than for traders, for example. This brings me to my second key question: *Does geography matter in different ways for the services involved in venture capital markets?* Are trading, sales, and corporate finance functions *all* tied (informationally) to Vancouver? Are any of them tied to the city?

To answer these key questions, I built on the work of Clark and O'Connor, clarifying areas where they were somewhat "opaque". I found their analysis lacking in two respects. Firstly, it became apparent that to talk in general terms of "information" obscured as much as it revealed. Clark and O'Connor are reticent on this question, failing to define precisely what constitutes "information". They repeatedly deploy the term, "local market-specific information", but offer little by way of additional clarification. In the course of my research, respondents used the term to describe a variety of things: market prices, gossip regarding companies, "feelings" about the market, and relationships with clients. Furthermore, "information" is collected and circulated through different channels: official publications, web chat-rooms, conversations over golf, and so forth. Throughout this thesis, I seek to explore the question, "what is information?", for the various financial services. This becomes particularly crucial when it emerges that certain types of information are differentially affected by technological change.

This brings me to a further point that emerged during the interview process - the dynamism of financial markets, and the rapidity of change. For the most part, Clark and O'Connor take a snapshot, neglecting a temporal dimension. However, it became apparent that the answers to my research questions varied dramatically according to the period under analysis. Venture capital as a product, and the services involved in its production, have been significantly impacted by technological, regulatory, and other market developments. To take one example, the rise of computer networking technology has revolutionised trading. Change over time, then, figures prominently in this thesis. How has the trading, underwriting, and selling of venture capital changed between 1970<sup>1</sup> and the first years of the new millennium, and with what locational implications?

## **Structure**

The structure of this thesis is relatively straightforward. Chapter two reviews some of the debates outlined in only skeletal form in this introduction. Opening with O'Brien's "End of Geography" thesis, the chapter goes on to review the critique put forward by Clark and O'Connor. It finishes with the aforementioned delineation of "information" in financial markets.

In chapter three, I turn my attention to the venture capital product. I outline different ways for firms to raise venture capital, and then suggest that venture markets are an

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<sup>1</sup> Although a study which traces such questions back to the founding of the venture industry would be enlightening, I concern myself primarily with the period 1970-2000.

excellent example of an opaque financial product. In chapter four, I look at one particular venture marketplace – the city of Vancouver. Tracing the history of junior capital markets in the city to the present day, I set the scene for the empirical chapters that follow.

Chapter five is the first of three empirical chapters. These chapters draw on interviews carried out with financial professionals during the Spring of 1999.<sup>2</sup> Divided into Trading, Corporate Finance, and Sales,<sup>3</sup> the chapters engage with the issues raised in this introduction around location and information. In each case, I open with a detailed appraisal of the service. To put it another way, how is venture capital traded, underwritten, and sold? I go on to tease out the informational requirements of the service. Finally, I examine the geography of each service, suggesting how informational needs may influence locational choices. How important is it for a salesperson to be located near their clients? Does that same salesperson also need to be near traders, or the venture companies? How are competing claims balanced out?

In the conclusion to this thesis, I attempt to tie these questions together. I also look at the implications of my findings for the city of Vancouver. Given their diverse informational requirements, services were differentially impacted by technological and regulatory change. While certain services remain tied to the “information loops” wired in Vancouver, historically the hub of Canadian venture financing, others found themselves cut loose. How accurate, then, is Clark and O'Connor’s optimistic pronouncement for the

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<sup>2</sup> Appendix 1 outlines the field work and its methodological underpinnings.

<sup>3</sup> The categories of sales, trading, and corporate finance were chosen because this is how many financial firms divide their “production” staff. A further department is research. Although touched upon in this thesis, my data on the research process was too limited to comment in detail.

persistence of sub-national financial centres specialising in opaque products? After all, if the information to trade XYZ Mining is as easily available in Kelowna as in Vancouver, why remain in Vancouver in the long term? These questions are important for the city as it tries to increase its strength as a financial centre in the future. If location *is* becoming more irrelevant for individual financial firms, the same cannot be said for the places or employees that depend on their business.

**THE END OF GEOGRAPHY? PERSPECTIVES ON CONTEMPORARY  
FINANCIAL SPATIALITIES**

The purpose of this chapter is to elaborate on some of the ideas touched upon in the introduction to this thesis, and in so doing provide a theoretical foundation for the empirical chapters that follow. The first section examines O'Brien's 'End of Geography' thesis. His pronouncement regarding the (impending) obsolescence of locational variables for the financial sector provides the starting point for this study. In the chapters that follow, I demonstrate that O'Brien's assertion that location will soon be irrelevant for finance is insensitive to the diversity of financial products and services.

In the second section, I turn to the critique of O'Brien levelled by Clark and O'Connor (1997). Clark and O'Connor focus specifically on financial products, and suggest that O'Brien's "end of geography" thesis is applicable only to certain types of products, those characterised by ubiquitous information. Centrally, Clark and O'Connor assert that financial products are defined by different informational characteristics, resulting in different locational outcomes. For example, gold is characterised by almost ubiquitous information, and therefore can be produced in any number of locations. Information needed to manage property trusts, however, may only be assessed from a "local" location.

Clark and O'Connor thus dispute the “end of geography” by suggesting the persistence of a hierarchy of financial centres predicated on different financial products.

Information evidently plays a central role in Clark and O'Connor's thesis. Differences between financial products are theorised as differences in informational content, which, in turn, give rise to varied landscapes of production. Despite the centrality of “information” in their analysis, however, there is little discussion of what the category includes. Are rumours a form of information? Does it refer to market data such as closing prices? I attempt to define rigorously the meaning of information, drawing attention to its diverse components, and means of transmission. In doing so, I utilise the work of Porteous (1995) and others on the differences between more and less standardised forms of information.

**Footloose finance?: O'Brien's Global Financial Integration and the “End of Geography” considered.**

The end of geography, as a concept applied to international financial relationships, refers to a state of economic development where geographical location no longer matters in finance, or matters much less than hitherto.

(O'Brien, 1992:1)

So opens, Global Financial Integration: The End of Geography, a text aimed at financial policymakers, and written from Richard O'Brien's vantage point as chief economist at the American Express Bank. At the core of O'Brien's thesis is his assertion that there is a

strong trend towards integration of both financial markets and regulations that is diminishing the “relevance of geography and the need to base decisions on geography”. The integration of markets, O’Brien argues, is fuelled by technological change; international direct dialling, high-speed and high-capacity global inter-modal transport networks, and real-time electronic networks have combined to link people, places, and markets across the globe. The integration of rules is a product of regulatory change; the trend towards deregulation and liberalisation at the national scale has been accompanied by efforts to develop a global regulatory framework.<sup>4</sup> Reluctant to analyse the precise extent of progress towards the end (of geography) state,<sup>5</sup> O’Brien instead wants to contribute to discussion of policy priorities and choices. His own sympathies are fairly clear; progress towards integration is both inevitable and positive – the “brave new world of instant end of geography communications” across the globe should not be held back by “interfering regulation or tradition” (1992: 11).

Given the scope of his thesis, but the relative brevity of his text, it is not surprising that O’Brien’s brushstrokes are broad. The discussion below follows his framework and is in keeping with his arguments, but also benefits from additional reference to other sources. I will deal first with regulatory change, and second, technological change.

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<sup>4</sup> Agreement on trade in financial services was part of the Uruguay Round. Other organisations working towards similar goals include the Bank for International Settlements (BIS) and the International Organisation of Securities Commissions (IOSCO).

<sup>5</sup> Smith and Walter are less reticent in this regard. They suggested in 1992 that “salient financial market developments” would lead up to “seamless markets for many securities and derivatives *by the end of the*

## **Regulatory Change**

Changing regulatory trends in finance have been extensively documented (c.f. Leyshon and Thrift, 1997; Corbridge et al, 1994; Helleiner, 1996). Leyshon and Thrift (1997) describe the immediate post-war era as a “hybrid regulatory order” (1997: 70) that incorporated aspects of the internationalist model of the nineteenth century, as well as elements of a welfare-nationalist state order. The link between currencies and gold – viewed as anchoring money to a residual form of value – and a commitment to a largely open economy for international trade were inherited from the nineteenth century. At the same time, however, there was recognition of, and legislation for, the political and economic sovereignty of the state.

Regulation in the post-war era was largely conditioned by the Bretton Woods system that, according to Leyshon and Thrift (1997:70), “represented an attempt to build an international economic order in which separate national accumulation strategies could be pursued”. Supra-national organisations such as the International Monetary Fund (IMF) and the World Bank were created to oversee the international monetary system. A system of fixed interest rates was established as the dollar was linked to gold, and all other currencies indirectly linked through fixed exchange rates against the dollar. It was hoped that this system would bring stability to the currency markets, thus facilitating the growth of international trade. Movement of capital across national borders was limited using exchange controls in an attempt to impede the profit-seeking, private capital flows held

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*1990s*, in much the same way as a seamless market in foreign exchange exists today” (1992:142: my emphasis).

responsible for disruption of the monetary system in the nineteenth century.<sup>6</sup> Within national spaces, financial markets and practitioners were separated into specific functions in an attempt to limit the power of any single organisation. Foreign participation was also restricted.<sup>7</sup>

By the late 1960s, however, the Bretton Woods system was under severe pressure. As Leyshon and Thrift (1997) outline, the regulatory order contained a number of destabilising contradictions. There was an inherent tension between the role of the US as governor of the regulatory order, and its position as a competitive geographical-political jurisdiction. Moreover, if the regulatory order was oriented to politically and economically sovereign nation states, the internationalisation of economic activity rapidly undermined their autonomy. Large volumes of private financial capital began circulating on an international scale in the 1960s. Two processes contributed to this expansion in the volume of extant world money. Firstly, dollars were pumped into the world economy in the post-war years as the U.S. tried to revive capitalism in Western Europe with the Marshall Plan, and to suppress the rise of communism in Korea and Vietnam through military spending. Secondly, several U.S. corporations became “multinational”, extending their operations beyond their home nation, and introducing large amounts of dollars into the world economy. The internationalisation of U.S. financial institutions soon followed, as overseas branches were established to service their clients operating in

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<sup>6</sup> Keynes, an architect of the Bretton Woods system, called for the “euthanasia of the rentier”. He wanted to eliminate what he viewed as a class of parasitic bankers responsible for monetary perturbations that inhibited economic development during the nineteenth century. The intricacies of the nineteenth century financial system are beyond the scope of this thesis; for more detail see Leyshon and Thrift (1997) or Polanyi (1957).

foreign markets. By the early 1960s, American banks were further expanding their overseas operations to cater for the growing number of corporations and states that were reluctant to repatriate dollars. There was a demand for a set of money and credit markets outside the financial jurisdiction of the US, and the Euromarkets emerged to fill this niche. Comprised of securities sold outside the home country of the borrower, the Euromarkets developed as states and corporations issued debt<sup>8</sup> denominated primarily in offshore dollars.<sup>9</sup> Euromarkets thus operated beyond the jurisdiction of any national or international regulatory authority. For Leyshon and Thrift, these markets represented the birth of “an essentially deterritorialised economic phenomenon, which possessed a logic and a dynamic completely at odds with the national-centric order of the international regulatory system” (1997: 76).<sup>10</sup>

By the early 1970s, the burgeoning size of the Euromarkets placed an enormous strain on the existing regulatory system. Volumes of capital available to international institutions such as the IMF and the World Bank were far outstripped by the volume of private capital. International financial capital began to censure inflationary economies through the foreign exchange markets, the pressure of selling forcing states to deflate their economies by means of an interest rate rise. Convertibility, the backbone of the Bretton Woods system, also came under threat as the total supply of dollars in circulation was

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<sup>7</sup> In the UK, for example, entirely different roles were performed until the mid-1980s by commercial banks, investment banks, stockbrokers, and building societies. Rights to participate on the London Stock Exchange were withheld from foreign firms.

<sup>8</sup> These debt issues were often termed Eurobonds, which indicated that they were securities sold outside the home country of the borrower.

<sup>9</sup> Dobilas (1996) notes that the surge of petrodollars following the 1973 price increases also fed the Euromarkets phenomenon.

sufficient to threaten U.S. gold supplies. In 1971, the Bretton Woods system collapsed when the U.S. terminated the right of dollar holders to convert notes into specie. The fixed exchange system was abandoned in 1973, and the stage was clear for what Leysdon and Thrift (1997) term, “a new international financial system” (NIFS).

By the late 1970s and early 1980s, a NIFS was beginning to take shape. New financial instruments emerged, the most far-reaching being “swaps” that evolved to circumnavigate market inefficiencies. Defined as a financial transaction in which two parties agree to exchange a predetermined series of payments over time (Hammond, 1987), the earliest swaps were currency based, and used to arbitrage between different regulatory environments. Currency swaps were later surpassed in volume by interest rate swaps that rested on the different perceptions of borrowers regarding future interest rates.<sup>11</sup> National monetary autonomy was impeded as internal measures such as interest rates were rendered less meaningful by the ability of financial institutions to create swaps and other synthetic products. In enabling borrowers to engage in trans-national capital substitution by removing imposed market variations, swaps proved an important driving force in creating more integrated global markets.

A second major aspect of the NIFS was securitisation. Until the early 1980s, debt markets were largely controlled by banks that issued loans to corporations and states. Banks were

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<sup>10</sup> The Euromarkets were largely based in the City of London, but they remained outside British financial regulation. The Bank of England encouraged their development as part of their attempt to make the city the world's premier financial centre.

<sup>11</sup> Hammond (1987) notes that the volume of outstanding currency swaps rose from \$2-3 billion US dollars to \$80-100 billion between 1982 and 1986. The volume of outstanding interest rate swaps, however, rose from \$2-3 billion to \$350 billion over the same period.

thus severely hit when developing debtor countries defaulted on their repayments in the wake of the worldwide deflationary trend that followed the oil price rise from 1981 onwards.<sup>12</sup> Many banks suffered a decline in their credit-worthiness ratings, and western sovereign borrowers and multinational corporations discovered that they were a better investment risk, and debt could be obtained on better and more flexible terms by approaching investors directly, rather than through the intermediation of a bank. Interest-bearing bonds became the principal form in which international debt was organised. In a process known as securitisation, investors lent directly to borrowers via the purchase of bonds and securities, boosting the business of securities houses.

If the international regulatory order unravelled with the collapse of Bretton Woods in the early 1970s, national regulatory regimes were under stress by the 1980s. Nationally-based regulatory controls held over from the post-war period became increasingly extraneous as the new international financial system took shape. The advent of securitisation fused the activities of debt provision with that of securities trading; the strict separation of these activities enforced in many national financial markets, however, prevented institutions from capitalising on new opportunities.<sup>13</sup> By the 1980s, established financial centres such as London and New York were losing business as institutions and investors moved to less regulated financial markets.<sup>14</sup> Many financial centres realised that success in the NIFS meant attracting capital and financial institutions, and deregulation was seen as central to this task. “Big Bang” heralded the unveiling of the new,

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<sup>12</sup> For more detail on the developing country debt crisis, see Corbridge (1993).

<sup>13</sup> In many countries, institutions were permitted to engage in either banking or securities trading, but not both.

deregulated City of London in 1986. In the United States, the process began in the early 1980s, and Japan had instituted some deregulatory measures by mid-1988.<sup>15</sup> Although the specific measures varied from country to country, in most cases the strict separations of functions and markets were broken down, and restrictions on foreign participation removed.

In Canada, the deregulatory process began in the mid-1980s. Organised after the Depression to revive confidence in the financial system, Canada operated a regulatory system defined by “four pillars” (Dobilas, 1996) for most of the post-war period. Banks, trust companies, insurance firms, and securities dealers each operated under rules that defined their activities narrowly and allowed for no overlap. Banks accepted short-term deposits and provided business loans. The securities industry transacted purchases and sales of equity, and underwrote new stock issues. The insurance companies sold insurance, and trust companies managed estates and trust funds. To ensure the system remained widely held and in Canadian hands, no individual shareholding could exceed 10% of the total, and no financial institution could be more than 25% foreign owned (Tickell, 2000).

By the mid 1980s, the “four pillars” were crumbling as new financial instruments blurred the demarcation lines between them. As Dobilas (1996) observes, it became increasingly difficult to decide within whose jurisdiction a particular activity fell. In mid-1987, the government granted financial institutions the right to provide the full range of financial

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<sup>14</sup> Offshore havens such as Bermuda and the Cayman Islands were particularly popular; see Roberts (1994) and Hudson (1998) for more detailed examination of this phenomenon.

services. Becoming a financial “supermarket” demanded a large capital base, and institutions merged and made acquisitions. Banks purchased brokerage firms, establishing footholds in a market made extremely lucrative by securitisation. By the end of 1988, all five major banks in Canada had made significant acquisitions in the securities industry.<sup>16</sup> NAFTA, the North American Free Trade Agreement, also eliminated restrictions on the operation of US financial institutions in Canada, and many Canadian investment houses were acquired by US banks.

In Canada, as in other countries around the world, progressive deregulation of financial systems was underway by the 1980s. Regulatory restructuring, however, tells only half the story. In the next section I turn to technological drivers of market integration, as outlined by O’Brien and others.

### **Technological Developments**

None of the aforementioned regulatory changes can be understood independently of the dramatic technological developments that have occurred in recent years. In particular, computer-networking technology has revolutionised global finance (Hepworth, 1991; Dobilas, 1996). Given the enormity of the impact of technological change on financial markets, the following discussion concerns itself with one particular type of market – equities.

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<sup>15</sup> This included permitting foreign institutions to apply for membership of the Tokyo Stock Exchange.

Equity represents ownership shares in a corporation, and may be bought and sold on stock exchanges. Stock exchanges evolved from meeting places where buyers and sellers came together, as was the case for a pub called Lloyd's in London, and a Manhattan curb on Wall Street. As trading became more formalised, it moved onto a trade floor, and regular business hours were instituted. Two principal types of market evolved. In the first, dealer markets, certain individuals act as "market-makers" in particular stocks, buying and selling from their own inventory. In order to transact, a trader approaches the appropriate market-maker on the exchange floor. The profit is derived from the bid-ask spread – the difference between the buying price and the selling price made by the dealer. In the second, auction markets, all transactors are able to bid and offer on stock, and traders search for the best counterparty.

For much of its history, trading equities was a manual process. Until the 1980s, trading required a presence on the trade floor. Once a trade was completed, tickets were filled out with information on the stock, the price, the volume, and the counterparties. This information later became public, although it was subject to a time-delay. Leyshon and Thrift (1997) document the transmission of information between the City of London and other financial centres, noting the evolution from the carrier pigeon to the telegraph and, later still, the telephone.<sup>17</sup> Securities firms used runners to transmit information between

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<sup>16</sup> CIBC, for example, purchased Wood Gundy. Toronto Dominion Bank bought the Gardiner Group, and the Bank of Montreal purchased Nesbitt Thompson.

<sup>17</sup> The telegraph was first used in London by Reuters in 1851 to transmit exchange prices between London and Paris. By 1866, a connection was in place between London and New York. The telephone was introduced into London in 1879, and by 1937 there was a link between the City and New York (Leyshon and Thrift, 1997).

the trading floor and their offices. An alternative was the “tickertape” which used a teleprinter to transmit a record of prices.

By the 1960s, however, technological innovation permitted ever-increasing levels of automation in the trading process. The telephone and telex were merged with new computers, creating modern forms of telecommunications. In 1964, the first computerised price quotation service was offered, replacing the old tickertape by making prices available at push-button demand. Securities firms and other institutions accessed prices through computer terminals. In 1973, a real-time interactive quotation service was established that allowed customers to input data. With this innovation, bond and foreign exchange trading became semi-automated. Rather than conduct business from a central place such as a trade floor, bond traders sat in their own offices. Traders would look up prices on screen, identify the best counterparty, and then place a phone call to confirm the trade. The next stage, fully automated dealing, facilitated full execution of many orders in real-time over the network, and was accompanied by faster, more accurate reporting on prices and market activity.

In response to such opportunities, an increasing number of stock exchanges closed their trading floors during the 1980s and 1990s in favour of wholly automated systems.<sup>18</sup> The hallmark financial image of the 1980s was young dealers shouting into telephones, in front of rows of computer screens (Coakley, 1994). Rather than transact with other traders face-to-face on the floor, traders execute orders via electronic networks from

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<sup>18</sup> Some exchanges, including the New York Stock Exchange, retained trading floors. Technologies such as hand-held consoles for recording trades have been adopted.

terminals on desks.<sup>19</sup> In 1986, the London Stock Exchange (LSE) introduced SEAQ (Stock Exchange Automated Quotation), a screen-based dealing system, removing traders from the floor and into dealing rooms.

New technologies did not just change the day-to-day functioning of stock exchanges, but also contributed to their internationalisation. In the past, national exchanges and securities firms possessed a monopoly on the trading of domestic stocks, but this is being eroded gradually by technological (and regulatory) integration. At the debut of SEAQ, for example, prices were displayed by 40 market makers for over 460 foreign stocks. Market makers from across the world were invited to contribute prices. SEAQ, as a system, was in fact modelled on NASDAQ, itself an excellent example of an “international” marketplace. Established in 1971, NASDAQ is an electronic marketplace for equities trading that links over 500,000 terminals worldwide, the main locations being the US, the UK, Canada, and Switzerland. As many as fifty market-makers compete in some actively-traded securities, constantly posting prices at which they will buy and sell. Financial professionals acting on behalf of clients look for the best price, and execute the trade over the computer network.<sup>20</sup> Since its inception, NASDAQ has been very successful. In 1994 it surpassed the NYSE in annual share volume for the first time. By the start of 1999, 440 non-US companies listed on NASDAQ.<sup>21</sup>

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<sup>19</sup> Leyshon et al (1989) observed that Big Bang had a positive impact on some of Britain’s provincial financial centres. Financial professionals in Manchester, for example, experienced a large upturn in trade when electronic access to the London Stock Exchange was introduced.

<sup>20</sup> The NASDAQ website, [www.nasdaq.com](http://www.nasdaq.com) offers excellent overviews of the exchange and its trading operations.

<sup>21</sup> Out of a total 5126 companies.

NASDAQ's mission statement speaks directly to O'Brien's scenario:

Our vision: To build the world's first truly global securities market...A worldwide market of markets built on a worldwide network of networks...linking pools of liquidity and connecting investors from all over the world...assuring the best possible price for securities at the lowest possible cost.

(www.nasdaq.com)

Screen-based systems are able to interface with other securities marketplaces, facilitating worldwide financial integration. SEAQ linked with NASDAQ in 1986, and each show quotations for about 300 of the other's securities.<sup>22</sup> As a result, there is a reduced need for companies to list in foreign markets to obtain exposure.<sup>23</sup> NASDAQ is also involved in the recent proposal for the "iX" merger between the London Stock Exchange and the Deutsche Bourse.<sup>24</sup> If the merger goes ahead, NASDAQ Europe will become a partner to iX, a move intended to "provide for a wide ranging, globally linked pan-European market for the listing and trading of initial public offerings, U.S. and Asian and other international securities and "new economy" stocks from all across Europe" (www.nasdaq.com). Eventually it is hoped the NASDAQ iX joint venture will be linked to the other NASDAQ-branded markets around the world (in the US and Asia), creating a global, seamless, real-time trading platform.

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<sup>22</sup> Since computer systems have been sold worldwide, interfacing can take place. NASDAQ, for example, sold its system to London (SEAQ), Singapore (SESDAQ), and Japan (JASDAQ). The Toronto Stock Exchange also pioneered a Computer Assisted Trading System (CATS) which was later adopted in Paris, Brussels, and Madrid. Interfacing between, say, CATS-based systems and NASDAQ-based systems is more problematic, but steps are being taken to harmonise trading platforms worldwide.

<sup>23</sup> Companies cross-list in order to access the capital of foreign investors.

<sup>24</sup> Milan and Madrid have also expressed interest in joining iX.

The NASDAQ iX venture is only one example of recent alliances between stock exchanges. In March of this year, Euronext was created as the French, Belgian, and Dutch bourses announced a merger. And in May, the Swiss Stock Exchange and Tradepoint, a London-based electronic equity market, announced talks on developing a pan-European trading platform that would allow Switzerland's blue-chip stocks to be traded under UK market regulations.

There are good reasons to suggest, then, that technological and regulatory change are accelerating integration of global financial markets. Nonetheless, some commentators suggest that the proclamation of the "end of geography" is more than a little premature. In the next section, I review some of these arguments.

### **Not The End of Geography?**

O'Brien's assertions regarding both regulatory and technological change are not without critics. With respect to regulation, Hirst and Thompson (1996) argue that the idea of a nation state undermined by "forces" of globalisation (whether financial or otherwise), is over-rehearsed.<sup>25</sup> Individual states, they assert, still exercise considerable independence and authority in the regulation and management of their broad political economies.

The tenacity of national regulatory regimes became evident during recent wrangling over the iX venture. As a compromise measure, it was initially suggested that the combined

Anglo-German market for blue-chip stocks be based in London, and regulated by UK market standards. The new growth companies, on the other hand, were to be listed and regulated in Germany. Standards between the two countries differ mainly in terms of the level of disclosure of potentially price-sensitive information required from companies. However, UK-fund managers recently warned that regulatory standards had to be the same across the iX exchange, regardless of where the markets were based. The issue is currently unresolved, and at the time of writing, the entire merger is faltering.

A recent article by Adam Tickell (2000) also offers an interesting insight into the control the nation state exerts over the financial landscape. In his study of the bid for bank mergers in Canada, Tickell demonstrates that liberal strategies do not always prevail. In December 1998, Canada's finance minister blocked the merger proposals put forward by four of the country's largest banks on the grounds that it would lead to an unacceptable concentration of economic power in the hands of a few banks, and to reduced policy flexibility for government. The banks wanted to combine forces to compete on more equal terms with the global conglomerates that currently dominate financial markets. Even in the new (deregulated) international financial system, it seems, some governments are reluctant to adopt an entirely laissez-faire approach vis-a-vis matters financial.

Integration of markets is also far from complete. While prevalent in press and industry accounts, the actual practicalities of implementing technologies are glossed over in some academic sources, lost in the "bluster and hyperbole of the epic and epochal accounts which are now almost automatically associated with writing on the new electronic

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<sup>25</sup> See Cerny (1994) and Helleiner (1996) with respect to financial globalisation.

communications technologies” (Leysdon and Thrift, 1997: 323). The Taurus settlement system designed to automate settlement and clearing in the City of London was abandoned because of technological obstacles (Thrift, 1994). Even when feasible, the cost of technological integration is a significant barrier. The City of London spent an estimated one billion pounds converting to the SETS electronic trading platform three years ago, and now faces similar costs converting to new Xetra technology for the iX venture.<sup>26</sup>

Moreover, it is not always the case that demand exists to justify the cost of integration. Although there is the technological capacity to deal globally 24 hours a day, it seems that investors still exhibit a preference for trading domestic stocks during regular working hours. Several expensive attempts at link-ups and alliances between exchanges have been abandoned due to lack of interest. In the 1980s, an alliance among the Toronto Stock Exchange, the American Stock Exchange, and the Chicago Stock Exchange was set up. The relationship ended soon after when it failed to generate sufficient business. The after-hours trading sessions instituted by Canadian exchanges also proved less successful than hoped.<sup>27</sup> Intended to attract new investors from other time-zones, trading volumes are very low. On two recent evenings, no trades were recorded during the Vancouver Stock Exchange’s VISTA after-hours session aimed at Asian clients.

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<sup>26</sup> To put this in context, the LSE had an estimated total value of 300/400 million GBP when it was demutualised in March.

<sup>27</sup> The Economist (8<sup>th</sup> October, 1984:67: quoted in Hepworth, 1991) asked, “Can stock exchanges .. afford to sleep?” The failure of many efforts at 24-hour trading suggests that time-zones still have relevance for most investors and traders, if not the exchanges themselves. The exchanges may not want to sleep, but people apparently do.

Regulatory and market integration should therefore not be overstated. As Hepworth (1988: 134) notes, “The emergence of a so-called ‘global capital market’ is still some way off”. O’Brien himself acknowledges that he is describing a trend or directional movement, rather than a contemporary state. Clark and O’Connor (1997), however, dispute not the broader process of integration, but rather O’Brien’s lack of sensitivity to the ways in which this impacts financial products divergently. Their ideas are taken up in the following section.

### **Financial products, information, and location: Clark and O’Connor on the “End of Geography”**

The critiques outlined in the previous section start from an empirical standpoint, suggesting that O’Brien overstates the extent of technological and regulatory change. Gordon Clark and Kevin O’Connor, by contrast, offer a more theoretical critique of O’Brien’s work. Technically informed, Clark and O’Connor focus principally on the informational content of different financial products to show why, *logically*, geography still matters. In prioritising information, they follow others in acknowledging its status as the “oxygen” or lifeblood of finance. As Code (1991) notes, financial markets pivot around information. Financial professionals devote most of their time to generating, capturing, interpreting, and representing information flows (Leyshon, 2000). Unsurprisingly, information is used in finance for advantage (Clark and Wojcik, 1999). It

is a commodity “that is bought and sold and supplied to producers and consumers in the pursuit of profit or utility” (Mitchelson and Wheeler, 1994: 88).

Clark and O'Connor open their argument with the observation that there is no empirical evidence to suggest that we have reached an “end of geography” state. Global financial centres, they note, coexist with smaller national and regional financial hubs. Beyond this observation, their discussion moves firmly away from the empirical, and towards a theoretical justification for the persistence of a hierarchy of financial centres. The theoretical argument pivots on what they term the “informational content of financial products” (1997:89). Logically, geography still matters because “it embodies key factors in the production process of financial products” (89), namely, “locally specific information networks of producers”, and the “monitoring of firms’ financial and investment performance” (90). To put it more simply, gathering information and monitoring performance possesses a geographical logic, although – and this is central to their argument - this varies according to the financial product in question.

Clark and O'Connor illustrate these arguments using a typology of financial products. They deploy a triptych of products with the intention of demonstrating their varied informational, and thus locational characteristics. Gold is used as an example of a *transparent* product. They note,

These types of products are those whose qualities and dimensions are so well known or simply and cheaply observed that institutions can trade in/out of positions just on the basis of observed past and current prices (1997:96).

No matter where you are located, it is possible to access the relevant price information and trade accordingly. That said, Clark and O'Connor argue that most transparent products are traded from global centres such as New York, London or Tokyo. Transparent products are produced where the trading volume is large - notably, in global cities.

*Translucent* products, by contrast, are defined as “commonly traded and produced products whose particular characteristics are deliberately designed by institutions to be different from the standard, industry reference product” (1997:96). While their standard features are generally known, their specific qualities are only known in more “local” markets. Balanced equity products, for example, are used by most financial institutions.<sup>28</sup> The particular characteristics of any one example, however, reflect knowledge of a specific sector, and the skill of the product designer in selecting particular stocks. To be effective with respect to performance, product designers must usually be close to the selected stocks. Put more directly, Clark and O'Connor argue that if a financial institution “X” wishes to create a successful balanced equity fund comprised, say, of Canadian technology stocks, product designers are likely to have the best access to information about the technology firms if they locate in Canada. This, suggest Clark and O'Connor, creates opportunities for a second (national) level of financial centres. Clark and O'Connor acknowledge that, taken to its logical conclusion, designers of balanced equity products may diffuse to smaller regional financial centres in order to maximise information about companies. However, the costs of assembling and maintaining

information systems necessary to identify and monitor translucent products, as well as the skilled personnel required to market them, “relies upon significant scale economies” (101). This, they suggest, limits diffusion, and provides national centres such as Chicago, Frankfurt, Hong Kong and Sydney, with an important source of business.

The final type of product – *opaque* products – are defined as:

local in the sense of being network- or transaction-specific. They require heavy investment in terms of the collection, sorting and valuing of information, and a degree of monitoring and surveillance that can only be efficiently done at the local level (1997: 108).

Clark and O'Connor use the example of REITS (real estate investment trusts). Designers of REITS package investments in real estate, and sell the product in units or shares. Given that land and properties are tangible commodities, and firmly “place-based”, it follows that information concerning the profitable packaging of real estate may have a local dimension. To access the relevant information, and subsequently to monitor the investment, a local presence is required. For these reasons, Clark and O'Connor write,

Property trusts will often be produced by firms with access to local markets as the information about them is so specialised, thereby providing the third layer in global financial geography (1997:102).

This third layer is comprised of sub-national centres such as Boston or Melbourne.

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<sup>28</sup> In a balanced equity product, equity in a certain sector, or sectors (e.g. technology), is pooled and sold.

What emerges from Clark and O'Connor's typology of financial products is diversity, with respect to the informational characteristics of products, and the resulting locational configurations. O'Brien, they suggest, ignores the issue of information embedded in different financial products, and in so doing, overlooks logical reasons for the persistence of a hierarchy of financial centres. If, as Code (1991:118) notes, "improvements in communications reduce the relative advantages of regional or local financial communities", this process is far from complete. Those placed locally may still be more efficient at accessing and processing certain information. O'Brien's "end of geography" pronouncement, they claim, rests on the assumption that all products are as informationally transparent as gold.<sup>29</sup> For Clark and O'Connor, such a thesis is only plausible at the core of the global financial system, where a few transparent products dominate.

In making their case, however, Clark and O'Connor may overlook some of the nuances of O'Brien's text. While there can be little doubt that his argument makes a broad sweep across the financial landscape, culminating in the "end of geography" proclamation, he is also cognisant of the diversity of financial markets. Indeed, at times O'Brien fully anticipates the criticisms levelled at him by Clark and O'Connor. The foreign exchange markets are far more global than their equities counterparts – unsurprising, he notes, given that "it is much easier to analyse currencies from afar than, say, companies"

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<sup>29</sup> For a more detailed discussion of the informational efficiency of financial markets, see Malkiel (1996) and Sharpe and Alexander (1990). Financial professionals, as well as academics, have long disputed the efficiency of markets in processing information. Those who believe in strongly efficient markets postulate that location is irrelevant: all information is instantly available everywhere, so no-one can profit by virtue of their particular location. Sharpe and Alexander, among others, suggest that markets are weakly efficient, and information is subject to time-lags. In their study of the City and other financial centres during the

(1992:34). Companies have more individualised characteristics, and therefore proximity is beneficial. Currencies and bonds, on the other hand, may be examined in a common framework. To this end, O'Brien comments, "Stock exchanges that aim to retain control over local company trading have a much better chance of succeeding in this plan than in trying to retain an edge over trading, say, the Bund" (1992:50). As a result of such diversity, he notes that financial integration may have "a less immediate impact than might be thought" (1992:50).

To different degrees, then, both O'Brien and Clark and O'Connor are attentive to the informational composition of the various financial products. However, the term "information" remains largely unpacked in both accounts. In the next section, I turn my attention to this task.

### **Information**

The purpose of the discussion that follows is twofold. In delineating and disaggregating what constitutes information in financial markets, it seems to me that Clark and O'Connor's argument around financial products can be made more robust. Diverse forms of information, whether rumour or observation, market data or global news, may be deployed differentially in the production of various products. In this way, this section sets

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Asian financial crisis, Clark and Wojcik (1999) also concluded that the information available to institutions "was not, as many would expect, homogeneous between financial centres".

the scene for chapter three, where I examine in some detail the various forms of information embedded in one particular financial product, venture capital.

Second, the discussion also lays the theoretical ground for the central empirical chapters that follow, where I examine the information requirements of the different *services* involved in the production of venture capital. Clark and O'Connor's somewhat vague definition of information may have contributed to their failure to acknowledge the diverse services involved in what they loosely term "the production process". They appear to assume that all services involved in financial production have the same informational, and therefore locational, needs. However, it is quite possible that the information required to *design* a financial product is different from that needed to *trade* or *sell* the same product. As a result, it is necessary to separate out the different activities. I recognise three: trading, corporate finance, and selling. My argument will be that because of their informational requirements, each financial service, or activity, assumes a different location.

### **Types of Financial Information**

How can we start to understand information in the context of financial markets? There appears to be no real consensus. The dictionary defines information as "knowledge acquired through experience or study", "knowledge of specific and timely events or situations", and "data" and its interpretation (Makins, 1995). Clark and Wojcik (1994)

provide a threefold definition specific to finance, citing gossip, real-time data on market trades, prices, and volumes, and official government data, corporate earnings reports, and news.

Given multiple forms of information, it should come as little surprise that typographies have emerged in an attempt to impose some classificatory order (c.f. French, 2000; Nonaka and Takeuchi, 1995). In the context of financial markets, I find the work of Porteous (1995) most helpful. He contrasts standardised information (he gives the example of stock-price quotations) with non-standardised information (e.g., financial rumour). In the chapters that follow, I return to this classificatory distinction on numerous occasions. Standardised information refers to stock market data (including stock prices and volumes) as well as government and corporate reports. I also include international, national, and local news in this category. Unstandardised information refers to financial rumour and gossip. However, unlike Porteous, I explicitly incorporate a second form of unstandardised information: information inferred or observed through interaction. This would include, for example, the impression a banker forms when he/she meets a client.

This acknowledgement of the diversity of information and the significance of less tangible forms draws on a wider academic literature. Shaun French (2000) suggests that growing interest in the divergent forms of information is part of a larger undertaking to become more sensitive to the role of social and cultural relations within the economy. Geographers and other social scientists are drawing attention to the salience of different forms of economic knowledge – forms that are more situated and embodied (see

Schoenberger, 1994, 1997; Leyshon and Tickell, 1994). Linda McDowell (1997), for example, draws attention to the role of the body within financial centres, and how bodily deportment and presentation are part of the information conveyed. Success in the financial world, she claims, depends upon “selling one’s self-image as part of the product” (1997: 440). Similarly, Nigel Thrift (1994) dismisses notions of financial centres as rigidly-ordered, machine-like entities. Financial spaces, he claims, are made up of networks of actors and resources that work to impose understanding and meaning on the financial world. According to Leyshon (2000), these and other arguments are part of an emerging “social constructivist” approach to finance.

Thrift’s claim regarding the creation of meaning in financial centres signposts a further point – that is, information requires interpretation in order to be made useful. Thrift observes that the current financial system generates huge amounts of information, but the biggest problem is how to make sense of it (Thrift, 1994). As a Wall Street Journal journalist explains in a Robert Erdman novel, “Well, I’m plugged in and, true, I’ve got information coming out of my ears. But what that information *means* I haven’t got a clue about” (cited in Parsons (1989: 227)). In their study of the Asian financial crisis, Gordon Clark and Daniel Wojcik (1999) observed that financial professionals looked to external sources such as the Financial Times for interpretation. As professionals saw their existing interpretative schemas confounded by events in Asia, reliable (and external) insight was at more of a premium. If access to information is critical, so too is managing and interpreting that information.

## Geographies of Information

What can we say about geographies of information? This is a contested issue. Some commentators suggest that communications technologies are disembedding information and, with it, financial activity (Harvey, 1989; Hepworth, 1991; Castells, 1989; Ohmae, 1995). The logic of the "space of flows" (Castells, 1989) suggests an inexorable effacement of place within the international financial system (Leyshon, 2000). Technologies such as the internet and computer networks are homogenising the spatial distribution of information, and propagating disembedded information spaces. If financial activity used to be concentrated in financial centres, it is now supposedly "footloose". As we have seen, this assertion is a central pivot of O'Brien's thesis.

These assertions have not gone unchallenged. It is argued that certain types of information, and, therefore, certain financial services and products, are tied to place. The discussion of standardised and unstandardised forms of information helps to understand why this may be so. Porteous (1995) makes a case for the importance of proximity in the transmission of *unstandardised* information. *Standardised* information, he suggests, can now be cheaply and efficiently carried over space via communications technologies. Stock price quotations for the New York Stock Exchange are instantly available in London and other financial centres across the world. With unstandardised information, however, the case is less clear-cut. As he comments, it is certainly not impossible to transmit such information over space, but its *quality* may decline sharply over distance

between generator and user. While a financial rumour about a particular firm, for example, can spread rapidly through global networks, traders farther from the source find it harder to “confirm” the information. This forces them to incur costs and delays in verifying it with local traders. As Porteous puts it, “Local firms may have a better and quicker sense of the accuracy and value of new information because of a variety of feedback channels and of localised information spillovers which pass on information that cannot easily be standardised and transmitted over computer networks” (1995: 93).<sup>30</sup>

*Interpretation* of unstandardised information often requires a location close to the source.

Moreover, despite the proliferation of new technologies that enable people to communicate across space, it seems that face-to-face interaction is still critical for certain aspects of finance. This can be attributed to a need for the second type of unstandardised information – observations or impressions. The ethnomethodological literature on social interaction in business (see Boden and Molotch, 1993) is sensitive to this fact. According to Boden and Molotch, those types of “business talk” involving a high degree of uncertainty still depend upon face-to-face interaction because of the way it facilitates particular types of communication and negotiation (for example, non-verbal gestures). Successful processing and interpretation of this information is predicated on an intimate

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<sup>30</sup> Shaun French (2000) argues that we need to be wary of polarising the geography of economic knowledge around a local-tacit/ global-explicit understanding. He comments, “The reduction of tacit knowledge to a specific geographical scale threatens to hide as much as it reveals” (107). The local: global debate, suggests French, rests upon the perceived geographies of people as opposed to that of information technology. Interpersonal relations, however, need not be “local” - business gossip between friends, for example, can take place over “global” distances. In the empirical chapters that follow, I remain open to a variety of configurations, highlighting the diversity of knowledges and geographies. At the same time, however, I find myself in agreement with Porteous who notes that although non-standardised (or tacit) knowledge is not entirely bound to place, the timeliness and quality of such information decays rapidly over distance. Although there are exceptions, it seems fair to say that non-standardised information flow is most efficiently processed and rapidly circulated within geographical localities.

face-to-face encounter, not a transaction over a computer network. As Green (1993) writes, "Subjective evaluations and personal relationships (are) not readily displayed on a computer terminal".<sup>31</sup> A banker and a corporate financial officer negotiating a deal want to be together in one room, in order that they can assess one another.

To paraphrase Boden and Molotch (1993), there may still be a "compulsion to proximity" in finance, predicated on a need for unstandardised information. In the next, and final section, I examine how this differs by product, and by service.

### **Information, Products and Services**

The arguments put forward by Clark and O'Connor represent an attempt to theorise the informational and locational characteristics of financial products. Recognising the diversity of information could further enhance their thesis. Although not explicitly stated in their argument, the production of a transparent product, such as gold, relies on more standardised forms of information, while the production of property trusts, by contrast, pivots around less standardised forms. In chapter three I elaborate on this point when I consider the diversity of information required for the production of one particular product, venture capital.

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<sup>31</sup> This is not to say that it has not been tried. As Clark and Wojcik (1999) comment, market agents have sought to displace observations and insider gossip with third-party information products, albeit with varying degrees of success.

As I suggested in the Introduction to this thesis, Clark and O'Connor do not attempt to theorise the diversity of financial services as well as products. Their neglect, however, is not indicative of a general oversight. Kerr, writing in 1965 on the "Geography of Finance in Canada", identified three categories of financial services: the collection and accumulation of funds, their disbursement or investment, and trade in financial instruments. Walter (1988) identifies four groups of services: credit, financial engineering, risk management, and market access. As Lee and Schmidt-Marwede note, "the category 'financial services' cannot be regarded as a rational abstraction or taken to indicate a unitary set of activities" (1993:503).

Despite this acknowledgement of the diversity of financial services, their varied *informational* requirements have not been scrutinised.<sup>32</sup> The exception to this is the debate around front- and back-office functions. Financial services have been divided into "front-office" and "back-office" categories, and the effect of technological change on location of these services has been examined (see Marschall and Bachtler, 1984). The "back-office" of banks, largely comprised of support functions such as settlement, payroll, and compliance, is considered routinised and lesser-skilled. Requiring only standardised forms of information, some back-office functions decentralised as technological developments made data available remotely. By contrast, "front-office"

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<sup>32</sup> Information has not been widely theorised in the aforementioned accounts of financial services and their locational needs. Lee and Schmidt-Marwede suggest that certain competitive resources (e.g. skilled labour) are more vital than others for different financial services, meaning different services will seek out different locations. In their study of direct representation in international financial markets (specifically in "second or third tier financial centres such as Amsterdam"), ter Hart and Piersma (1990) pose the question, "What activities are sensitive to physical presence?" They construct a continuum ranging from inter-bank payments, that require no proximity, to lead management of syndicates, that has a high degree of sensitivity. This sensitivity to physical proximity can be determined by four factors: the intensity of

functions, including trading and sales divisions, are reliant on unstandardised information flows. Technological change has not resulted in decentralisation. Financial professionals persist in locating in the downtown core to maximise access to informational networks (Code, 1991).

Front and back-office categories, however, obscure as much as they reveal. Both terms conceal a broad range of activities. In investment banks and other financial institutions, the term “front-office” includes trading, sales, research, and corporate finance services, and may also encompass legal and other functions. Moreover, each service varies in its demand for standardised and unstandardised forms of information. This study limits itself to three “front-office” services – trading, corporate finance, and sales – contrasting their informational and locational needs.

### **In Summary**

This chapter began with O’Brien’s thesis. Although sceptical of his “end of geography” pronouncement, I find O’Brien’s assertions regarding technological and regulatory integration useful conceptual tools. In the chapters that follow, the impact of technological and regulatory developments on venture capital markets is a recurring theme. Clark and O’Connor, however, provide the theoretical backbone to this thesis. In postulating the importance of geography for different financial *products*, Clark and

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contacts, the balance between rapidity and intensity, the scale of the transaction and the party one is dealing with. At no point, however, is information explicitly theorised.

O'Connor's work suggests a further research opportunity – a study of financial *services*. This thesis is concerned to tease out the informational and locational compositions of three services involved in the production of venture capital – trading, corporate finance, and sales. Defining “information” in the context of financial markets was a necessary first step. In the next chapter, I define venture capital.

## THE VENTURE CAPITAL PRODUCT

The main purpose of this chapter is to introduce venture capital as a financial product. It opens with a general discussion of four different ways to raise venture capital, namely “angel” investors, government programs, venture capital funds, and equity raised by going public. I then revisit Clark and O'Connor’s (1997) description of opaque financial products. This anticipates my argument in the following section, where I suggest that venture capital is an excellent example of an opaque product. Four distinct informational characteristics, I argue, render venture capital opaque, and encourage the clustering of activity associated with its production in particular locations. It is also acknowledged, however, that the opaque quality of venture capital may be diminishing over time, and the implications of this are considered.

This chapter, then, is concerned to elucidate *general* issues pertaining to venture capital. As I have suggested, however, the broader category of venture capital can be broken down into at least four component parts, each with different permutations of the general informational characteristics that are outlined here. The following discussion is therefore intended to set the scene for the more detailed investigation of one particular form of venture capital – junior equity raised by going public, and listing on an exchange.<sup>33</sup> In the

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<sup>33</sup> The terms “junior” and “venture” refer to the same thing in this thesis, and the terms are deployed interchangeably throughout.

empirical chapters that follow, I return to the informational qualities that are outlined here, and consider how they might shed light on the clustering of venture equity production in the city of Vancouver.

### **Raising Venture Capital**

When entrepreneurs or small companies want to develop an idea, or further expand their business, they need to search out additional funds. This process is referred to as raising venture capital. In recent years, much of the venture activity has been in the high-tech sector, but other sectors, such as natural resources, transportation, pharmaceuticals, and communications have also been important. The ventures also vary in size. Venture capital may be granted to individuals with little more than a concept<sup>34</sup>, or to more established businesses wishing to expand. For investors, venture capital is high-risk, involving speculative investment in unproven ideas and products. In placing high-risk bets on ventures that, as a rule, have less than a 20% chance of success (Fells, 1988), those involved in the markets expect “a very high return on investment if everything turns out according to plan” (Coutarelli, 1977:20). The New England Regional Commission (1972) asserts, “the typical venture capitalist... expects to increase his investment by a factor of five in five years.” As Pulver (1984) notes, this requires an annual return of almost 40% on successful ventures, or almost five times that which could be obtained on New York Stock Exchange (NYSE) stocks in an “average” period.

There are four principal sources of venture capital. The first is from individual investors, known as “angel venture capitalists”, who nurture new businesses informally. Angel investment is generally defined as the placement of money in exchange for private equity, often with the angels becoming directly involved in the business as mentors or advisors (Walters, 2000). It is estimated that angel investors put as much as \$20 billion a year into the Canadian economy in 1999.<sup>35</sup>

Governments are the second source of venture capital.<sup>36</sup> This often takes the form of low-cost loans, although governments also help small businesses indirectly by offering tax breaks to investors in early-stage companies (Walters, 2000). In the United States, the Small Business Administration introduced its Small Business Investment Act in 1958. The Act still exists, although it has been modified several times, and provides for low-cost debt leverage from Government funds (Fells, 1988; Thompson, 1989).<sup>37</sup> In Canada, the first major attempt to foster venture capital was provincial and was not introduced until 1977. Ontario’s Venture Investment Corporation was subsequently modified and reintroduced as the Small Business Development Corporations Act in 1979. By 1988, as Fells notes, “There has still been no move by the Federal Government to encourage venture capital in Canada” (1988:59): a situation organisations such as the Association of Canadian Venture Capital Companies are lobbying to rectify.

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<sup>34</sup> This very early stage investment is known as seed capital.

<sup>35</sup> According to an unreleased survey for Industry Canada obtained by Southam News. Other sources, notably Denzil Doyle, chairman of Capital Alliance Ventures, estimate that the figure is closer to \$1 billion.

<sup>36</sup> Haslett (1984) estimates that 17% of US venture investment comes from government sources.

<sup>37</sup> This has varied over the years from two to four times – e.g. \$1 million private sector equity, \$4 million low interest long term debt.)

The third source of venture capital – professional venture capital funds – are highly sophisticated investment organisations that combine equity participation and managerial skills (McNaughton and Green, 1988; Haslett, 1984).<sup>38</sup> In addition to a cash input, technical and managerial advice are provided to the borrower. Venture capital funds are firms that package investments in several venture companies, and sell units or shares to investors. In 1999 it is estimated that venture capital funds spent \$2.7 billion in Canada to fund everything from start-up biotechnology companies to Internet services. The average dollar amount of each deal was \$2.75 million, although in the technology sector it averaged \$3.2 million.<sup>39</sup>

The investment process for a venture capital fund usually has two phases – a pre-investment phase that involves finding, evaluating, and selecting investments, and a post-investment phase that involves monitoring and eventually exiting the investment. This form of venture capital investment is long-term, and a typical rate of return follows a “j-curve”, with negative cumulative rate of return in the early years, but a strong upward, positive trend by the third year (Thompson, 1989). Venture capital funds often find investments through the personal contact networks of their shareholders and employees. Outside sources, including lawyers, accountants and business consultants, act as important referees for investment proposals (McNaughton and Green, 1988). The strict criteria for selection – pivoting around the quality of the management team and the

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<sup>38</sup> These are often referred to as venture capital *firms*, but this can lead to confusion between the investing firm and the investee firm. For the sake of clarity, I usually refer to the investing parties as venture capital funds.

<sup>39</sup> Source: Canadian Venture Capital Association. Cited in Demont, 2000. The 1999 figure represents an increase of 64% compared with 1998, when venture capitalists invested \$1.6 billion. The top sectors

expected rate of return (Knight, 1986) – result in a high rejection rate.<sup>40</sup> Venture capital funds often specialise, which might take the form of a particular geographic area, industrial sector, stage in the funding cycle, or a combination of the three (Green, 1988). The end point of the venture capital investment occurs when the venture capitalist fund takes an exit opportunity. Exits are made in several ways, including repurchase by the portfolio firm, acquisition, initial public offering (IPO) or write-off. McNaughton and Green (1988) estimate that almost one third of investments end as write-offs. Repurchases are the most common means of exit, but IPOs are usually the most profitable for the venture capital fund (Venture Economics Canada, 1986).

Discussion of initial public offerings (IPOs) brings me to the fourth source of venture capital, raising money by going public. In an IPO, some equity in the company is transferred from private (e.g., management, or angel investor, or venture capital fund) to public hands, as shares are sold through stock exchanges. For some companies, this is undertaken at a relatively late stage, following earlier injections of capital from angel investors, government programs, or venture capital firms. Many venture capital funds, for example, exit by listing the portfolio firm on NASDAQ or a senior stock exchange. Senior exchanges such as New York and Toronto have minimum listing requirements that stipulate that companies must be of a certain size, and in possession of sound business histories – a condition reached only after significant financial input from other sources in earlier stages.

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receiving funds were: computer and internet-related industries (\$982 million, or 36%), telecommunications (\$359 million, or 13%), and biotechnology start-ups (\$316 million, or 12%).

Junior stock exchanges, by contrast, operate less stringent regulatory “vetting”, and offer an opportunity for start-up venture enterprises to raise money at a very early stage by going public. In some cases, ventures need not have a financial record, or even an operating business. Some firms turn to junior stock exchanges if attempts to raise money from other sources fail. In going public, the management relinquish some control and ownership of their business in exchange for a cash injection. The process theoretically begins when individuals with an idea or small business approach an investment dealer. The dealer evaluates the venture’s potential, and makes a decision about whether it represents a sound business opportunity.<sup>41</sup> If the dealer agrees to underwrite, they commit to raising money - typically between \$1 million and \$10 million<sup>42</sup> - for the venture by selling equity. The corporate finance department of the investment dealer prepares all the necessary documentation needed to list the company on a venture capital exchange. This includes technical surveys and appraisals, as well as financial statements and reports from accountants, lawyers, and chartered valuers. Once the Exchange accepts the listing, the sales department of the investment dealer arranges for the sale of the shares in the primary market<sup>43</sup> – a process known as an Initial Public Offering (IPO). The shares may then be traded back and forth in secondary markets through the medium of the stock exchange. In general, junior equities trade in a five cents to five dollar range, although on

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<sup>40</sup> In their survey of Canadian venture capital firms, McNaughton and Green (1988) found that only 3% of the proposals submitted to firms were eventually funded. They comment that this points to “both a shortage of funds in the market, and to an extremely conservative portfolio selection process.” (1988 :14)

<sup>41</sup> The criteria used by investment dealers are usually not dissimilar to those used by venture capital firms. Strong management is often key. More detailed consideration of the underwriting, selling, and trading of venture equities, however, is reserved for later chapters.

<sup>42</sup> To put this into context, Goldman Sachs Canada, who specialise in senior markets, rarely touch financings under \$75 million. Smaller national players pick up those deals “in between”.

occasions, stocks go far higher. At a later stage, if more funds for expansion are needed, companies approach investment dealers to underwrite further issues of equity.

To my knowledge, raising venture capital through junior stock exchanges has been relatively neglected by academics, and, more specifically, by geographers.<sup>44</sup> This may be a function of size. In a twelve month period in Japan, the number of venture stocks traded was the equivalent of less than one day's turnover on the Tokyo Stock Exchange. Similarly, within Canada, it was estimated that the Vancouver Stock Exchange – a venture capital specialist – undertook only 0.6% of total equity trading. However, it is specifically this fourth form of venture capital – namely venture or junior *equities* – that is the subject of this thesis. In the next section I review Clark and O'Connor's description of opaque financial instruments, before making the argument that venture capital more broadly is an excellent example of such an opaque product.

### **Clark and O'Connor on “opaque” financial products**

There are products where the design and production is shrouded in some mystery to the outsider, and local knowledge is essential for confident trading. These are opaque products.

(Clark and O'Connor, 1997: 102)

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<sup>43</sup> The term “primary market” refers to the fact that the equity has not been previously traded. When the shares have been bought and are then resold, they are considered part of the “secondary market”.

<sup>44</sup> See Thompson (1989) on the neglect of venture capital by economic geographers.

As discussed in chapter two, Clark and O'Connor contend that the information required by financial professionals varies in systematic ways according to the product. In particular, for them,

Opaque products are local in the sense of being network- or transaction-specific. They require heavy investment in terms of the collection, sorting and valuing of information, and a degree of monitoring and surveillance that can only be efficiently done at the local level.

(Clark and O'Connor, 1997: 108)

The first example they give is of designer-driven derivatives products. This includes swaps and options, although Clark and O'Connor provide no further clarification.<sup>45</sup> The critical factor for them is that such products are individually designed and customised for specific clients, sometimes using advanced mathematics and private, proprietary software. According to Clark and O'Connor, this high degree of customisation means that designer-driven derivatives are usually part of a longer-term financial relationship involving a degree of trust between the two parties. Given that the financial institution may not be able to observe directly the internal logic of such products, they rely on the product designers for the requisite information. Clark and O'Connor suggest that such interaction between client and designer may be termed “relational investing”.

These informational characteristics – notably the reliance on private (or what they also term, “transaction specific”) information, and the emphasis on “relational investing” –

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<sup>45</sup> No concrete examples of designer driven derivatives were offered by Clark and O'Connor. Although it is speculation, the complex products assembled by salespeople at UBS Warburg came to mind. In the foreign exchange department, salespeople liased with corporate and government clients to put together packages of options and derivatives that could, for example, hedge against currency risk. In one case, a car manufacturer that received revenues in one currency, but paid wages in another, required a sophisticated

supposedly render designer-driven derivatives an opaque financial product. Clark and O'Connor's argument is less precise about the resulting locational consequences. Their broader point is that geographies of information are embedded in the provision of specific financial products. More specifically, they argue that opaque production will cluster in "sub-national" (or "local" – they use the terms interchangeably) centres in order to fulfil their informational needs. Yet, while they are convincing in arguing that the production of designer derivatives is tied to specific firms (e.g., with the proprietary technology) and even specific individuals (e.g., the product designers), it is by no means clear why this should translate into a need for a "sub-national" location.

Clark and O'Connor are more convincing in their second example – REITS (real estate investment trusts). Designers of REITS package investments in real estate, and sell the product in units or shares. The tangibility of land and property means the product is firmly "place-based", and it follows that information concerning its potential profitability is likely most widely available at the local level. This was evident in a discussion I had with the manager of a real estate investment company:

Me: Is it necessary to have a presence near the real estate in question?

Interviewee: Yes. Local knowledge. If you don't have an office and your feet on the ground, you'll get killed... You've got to have local knowledge on real estate... Our biggest loss was on a property in Edmonton, and none of us had ever lived or worked in Edmonton. We got killed out there, absolutely killed.

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way of managing the exchange rate risk. Salespeople appeared to relish opportunities to perform these more complex and lucrative transactions.

I thus find myself in broad agreement when Clark and O'Connor assert, "Property trusts will often be produced by firms with access to local markets as the information about them is so specialised" (1997:102). If REITS are a good example, however, it seems to me that venture capital is even closer to matching Clark and O'Connor's profile of an opaque product, that is, those that "require heavy investment in terms of the collection, sorting and valuing of information". The next section considers the informational composition of the venture capital product in more detail.

### **The "Opaqueness" of Venture Capital**

As should be clear, Clark and O'Connor deploy a range of different criteria in defining opaque products. Although I support their general argument, their criteria are loosely defined. For this reason, while I draw on the wider argument of Clark and O'Connor, I intend to provide a set of more precisely defined criteria for determining an opaque financial product. In particular, I delineate venture capital as an opaque product by four specific informational characteristics: (i) the resource emphasis of venture companies; (ii) the lack of documentation and paucity of other information about start-up ventures; (iii) the concurrent importance of management in evaluating the potential of start-up ventures, and (iv) the tendency for "scam" activity to gravitate towards venture marketplaces.

### **(i) The resource emphasis of venture companies**

Historically, many of the companies seeking to raise venture capital are resource firms, a point made most vividly with respect to venture equities. Several venture exchanges arose specifically to service the needs of local natural resource companies. In Canada, venture capital exchanges were created in Vancouver, Calgary, and Winnipeg between 1907 and 1914 to finance local resource exploration. What later became the Alberta Stock Exchange started life in 1914 as the Calgary Stock Exchange, with a mandate to take advantage of investment opportunities generated by the Turner Valley oil-boom. Exchanges in Denver and Melbourne also aided resource exploration in their “hinterlands”. Although venture exchanges diversified into technology and industrials since the 1980s, most retain a significant resource component.<sup>46</sup>

This orientation towards natural resource listings may contribute to the opacity of the venture capital product. In his study of mining finance and the development of financial intermediaries in early-nineteenth to mid-twentieth century Canada, William Code (1991) argues that mining stocks are both informationally intensive, and volatile. As prospectors stake out properties for mines, large amounts of information in the form of assay results and other geological reports are generated. The value of land fluctuates wildly in response to this information, until it finally becomes clear whether it is a veritable

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<sup>46</sup> This is explored in more detail with reference to the VSE/ CDNX in a later section. It is worth noting, though, that in January of 2000, the Canadian Venture Exchange (CDNX) had 2358 listed companies, of which 959 were mineral exploration companies, 336 were oil and gas related, and 246 were technology stocks.

“goldmine”, or simply a “hole in the ground with a liar on top”.<sup>47</sup> At this point, the value of a stock can rapidly rise or plummet. For these reasons, Code suggests that financial professionals dealing in mining ventures required specific information:

Not only was a large amount of information needed to sift even a minimum of facts about investment opportunities, but also it was required “in a hurry” for, in this field, opportunities are particularly ephemeral.

(Code, 1991:127)

The volatility associated with mining and other resource stocks can be of great value to the speculative investor, and to financial professionals. In order to profit from the volatility, however, access to good quality and timely information is critical. “Inside information” that gives forewarning of a public announcement is considered particularly valuable, for it allows individuals to acquire or sell stock at a preferential price (e.g., before it rises or falls). According to Code, the high levels of uncertainty associated with the mining product, and the considerable information required to reduce this uncertainty, resulted in development of financial communities at nearby locations. In the early stages of resource development, financial intermediaries were dependent on information from exploration firms and prospectors, and located in close proximity to them. In later stages, if profitable internal linkages developed in the financial community located near the mining field, mining finance remained there. In Canada, the clearest example is the development of Vancouver’s financial community as a base for mining in the Canadian Cordillera.<sup>48</sup>

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<sup>47</sup> This is attributed to Mark Twain.

<sup>48</sup> Porteous (1995) puts forward a similar argument, suggesting that local financial centres may grow on the basis of being able to exploit high value information flows arising from the local real sector or “informational hinterlands”.

These factors – the heavy investment in information, and the need for persistent monitoring of this information to keep up with rapid change - are characteristics of opaque products outlined by Clark and O'Connor. Successful involvement in resource-oriented markets demands a significant investment in the collection and interpretation of information, a process Code suggests can be performed most efficiently from local financial centres. In the next section, I consider how the paucity of available information concerning venture companies also reinforces the importance of local financial centres.

**(ii) The lack of standardised information pertaining to start-up ventures**

An inherent characteristic of a start-up venture is its lack of “history”. A start-up may have no premises, no sales, no earnings, indeed, no operating business. As a result, such ventures rarely have complete financial reports or statements, or substantial records of any kind. Furthermore, as new businesses, they are relatively invisible to the general public, and to analysts who research and appraise companies. Some ventures may be mentioned in the local press, but most go some time without warranting sustained comment.

An investor or financial professional hoping to research a senior stock, such as Nortel or General Foods, would be able to peruse annual reports and quarterly financial statements, as well as newspaper stories and analysts’ appraisals. Professionals supported by large

financial institutions may have immediate access to hard copies of such material, or at least quick access either by fax or the post. By contrast, the researcher of a venture stock has fewer avenues to pursue. Information may be available direct from the company. Alternatively, if the start-up intends to list on a stock exchange, the exchange would have a copy of its prospectus.

It is useful to return to the discussion of different types of information in chapter two. Start-up ventures are largely characterised by a paucity of what Porteous (1995) terms “standardised information”. What information there is, moreover, is found in the “local” geographic area of the venture. For these reasons, “unstandardised information”, such as rumour and observations, assumes great importance for those involved in venture capital markets, and could include speculation about assay results of mining ventures, or comments on its management. Such informal sources are cultivated through face-to-face interaction with other interested parties, and information is filtered and interpreted by further contacts.

The reliance on unstandardised information may also give rise to specific geographies. While standardised reports are conveyed relatively easily across space, this is not true for unstandardised forms. For example, individual person-to-person confidences, while transmittable across space by means of, say, the telephone, are likely to be subject to the distance-decay effect highlighted by Porteous. To recap, Porteous argues that the *quality* of unstandardised information declines sharply over distance between generator and user.

In this way, a proximate location enhances access to the unstandardised information so critical for financial professionals concerned with venture markets.

In sum, the reliance on unstandardised information exaggerates the opacity of the venture capital product, and ties those involved in its production to local centres. I now consider how the importance of the management team further contributes to the opacity of venture capital.

### **(iii) The importance of management in evaluating the potential of start-up ventures**

If individuals or funds are unable to gather information on the past performance of start-up ventures, how do they decide in which ones to invest? The literature on venture capital *funds* suggests that the quality of the venture's management team is the most important variable in most investments. Precisely because of the lack of other performance indicators, such as financial history, investors make decisions based on their appraisal of management capabilities. The president of a venture capital fund told me, "We rarely invest in companies where we don't know the people involved. This is very much a business of following people" (V). Venture capital funds always meet the management face-to-face before making a commitment, and continue to oversee the management team if the relationship is taken further (Fells, 1988; Thompson, 1989; McNaughton and Green, 1989).

A fast-developing trend on venture capital *exchanges* also points to the importance of management. On the Canadian Venture Exchange, over 50% of new listings between January and March of 2000 were “capital pools” (CDNX Review, March 2000).<sup>49</sup> Venture capital pools are companies with a management team, but no business. Such companies use the money they raise in floating a public issue to seek out business opportunities. Technology Growth Partners Corp., a new Canadian Venture Exchange listing, defines its business thus: “To identify and evaluate opportunities for the acquisition of an interest in assets or businesses.” Somerville Capital Inc., headed by director and capital-pool veteran, Harry McCulloch, was taken public by Yorkton Securities as a junior capital pool on the Alberta Stock Exchange (ASE) in 1998. Yorkton subsequently brokered a deal in 1999 in which Somerville acquired Book4golf.com, an Ontario-based company that aims to be North America’s leading Internet tee-time booking agency.

The director of an investment dealer specialising in venture capital pools explained:

The premise is that the people who are put together as directors are veterans with experience and past success. This almost by definition increases the odds that they can find reasonable businesses which they can merge into this blind pool and go from there. It’s premised on quality business people, successful business people.....The chemistry they create amongst themselves helps engineer quality businesses (H).

Both the underwriting firm and, later, the investing public, are taking a bet on the people.

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<sup>49</sup> For the record, 12% of the remainder of new listings were “resource based” and 32% were “industrial based”. (CDNX Review, March 2000)

Given that management is critical, why does this then render venture capital opaque? Centrally, a great deal of importance is placed on face-to-face interaction with the management team, both in the pre-financing assessment, and the post-financing monitoring. In such encounters, both parties gather unstandardised information, forming impressions and making observations. Furthermore, the need to meet face-to-face results in precisely the “compulsion to proximity” outlined by Boden and Molotch (1993). Such meetings represent a significant investment of time and effort in the search for information, and this is reflected spatially in the selection of proximate investments. As the president of a venture capital technology fund commented:

Generally speaking in the venture business, you want to invest in companies that are relatively close to where you are. You spend a lot of time with these companies, and it is best to do some of it in person. It’s much nicer to be able to get in your car and drive there in half an hour, than having to get on a plane and fly there in half a day (V).

In their survey of Canadian venture fund investment McNaughton and Green (1989) note “extreme self-bias in the selection of regional investment locations”, with investments “characterized by steeply sloped distance decay curves” (1989: 17). They attribute this to the need for information gathered through the meeting and monitoring of management. They conclude:

The location of venture capital firms and the location of investments are variables that can be manipulated to maximise access to information, thereby minimising uncertainty and reducing risk. The need for information accessibility constrains the activity space of venture capital firms and limits the distance over which investment transactions can take place

(McNaughton and Green, 1989: 17).

The centrality of face-to-face meetings with management means that venture capital is transaction-specific (in that each deal is worked out on an individual basis between the start-up company and the investors), and requires a time-intensive and personal commitment to the collection and valuation of information. Furthermore, research into venture capital funds suggests that the investment process demands precisely the “degree of monitoring and surveillance that can only be efficiently done at the local level” referred to by Clark and O'Connor (1997: 108). In the final section I suggest that the prevalence of illegal and “scam” activity in venture marketplaces further contributes to the opacity of the product, and locational clustering in particular places.

**(iv) The tendency for “scam” activity to gravitate towards venture marketplaces**

Most senior market stocks, including household names such as Microsoft, started life as small firms seeking venture capital. Alongside promising start-up firms, however, are companies with no business potential, whose only purpose is to act as vehicles for “scam” activity.

The problem is particularly apparent in the venture equities market. Stocks are manipulated by financial professionals, who subsequently realise a huge profit, often at the expense of public investors. Financial journalist Diane Francis outlines “the basics” of stock manipulation in her book, “Contrepreneurs”. Most manipulations, she comments,

are variants on a financial “The Emperor’s New Clothes” story. In place of genuine venture companies, financial professionals purchase a controlling number of shares in a “dead” company that, while listed on the exchange, rarely if ever trades. Unlike senior exchanges, where strict regulatory surveillance and standards ensure such companies are identified and removed, junior issues often remain listed, even when operations and trading have ceased. Having acquired a shell company, the next step is to create the illusion that a company has prospects, and is popular and broadly owned, in an attempt to pique investor interest. In reality, the business may be entirely defunct, and its manipulators may directly or indirectly control trading of 90-100% of its shares, buying and selling between themselves at ever-increasing prices and volumes.<sup>50</sup> Another way to create the illusion of a price rise is to “paint the tape”. Since newspapers publish only the closing price, manipulators nudge through a higher price order just before the end of closing. Fraudulent press-releases may also be issued to increase interest in the company.<sup>51</sup> Finally, the point comes when the insiders cash in by “blowing-off” the stock to the public at the highest possible price. Soon afterwards, the stock price inevitably plummets as the reality of the company’s prospects becomes clear.

In Canada, the activities of a mining promoter, Viola MacMillan, illustrate some of these practices. In July 1964, she instructed her broker to sell 240,000 shares of a company listed on the Toronto Stock Exchange junior board. The shares in the Golden Arrow

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<sup>50</sup> Senior stocks have their own problems with illegal activity, but this particular kind of manipulation would be almost impossible to effect. In junior markets, manipulators are able to acquire shares in a shell company for pennies, and the purchase of a 90-100% interest is feasible. Senior stocks generally trade at much higher prices, making it much more expensive to acquire even a small stake.

<sup>51</sup> It was common practice in some venture markets to give reporters cheap or free shares in new companies that were about to be listed, in return for favourable coverage.

company were sold from accounts she owned or controlled, to other accounts she owned or controlled – an illegal practice referred to as wash-trading. This transfer was reported as a large trade on the ticker-tape of the exchange and sparked more buying, and a price-hike from 25 cents to 58 cents. She then sold most of her shares for between 50 and 55 cents each. MacMillan was eventually charged with the offence of wash-trading, and went to jail for several months.

Such problems are not confined to Canadian exchanges. The US Senate (98<sup>th</sup> Congress) held a hearing entitled, “Fraud and Abuse in the hot issues and penny stock markets” (1984). The Subcommittee on Securities of the Committee of Banking, Housing, and Urban Affairs reported that the principal problems were in the methods of distribution and after-market trading. More specifically, they observed that artificial restriction of the supply of securities was rife, as were devices designed to create a false impression of the market for a security.

How may this increase the opacity of venture capital? I am not aware that any theoretical attention has been directed towards the study of this phenomenon.<sup>52</sup> However, it would seem logical to suggest that being on the profit-making (or at least not on the loss-making) side of such activity involves acute market awareness. Not only does success in such markets demand rapid access to large amounts of information, it also, more importantly, depends on accurate *interpretation*. Those involved need to know which

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<sup>52</sup> Tickell (1996) and Clark (1997) both considered criminal activity in financial markets in the wake of the Barings debacle. Neither, however, really cast much light on venture markets. A potentially interesting argument could be made if Gordon Clark attempted to tie together his insights on rogue traders (1997) and opaque products (1997).

press-releases are accurate, and which are fictions; which assay results are to be believed, and which should be ignored. Such heavy investment in the collection of information, and the monitoring needed to interpret this information, are characteristics of opaque products put forward by Clark and O'Connor. There are good reasons to suggest that this would be most efficiently carried out at the local level. Notice of illegal activity is unlikely to be circulated prior to the event through standardised channels, and rumour and gossip are more likely sources. As suggested, access to such unstandardised forms of information comes largely through local personal networks that are local.<sup>53</sup>

At this stage, these assertions have little empirical backing. In the chapters that follow I examine these ideas with reference to venture capital markets in the city of Vancouver. However, it is also important to note that venture capital may be gradually diminishing in opaqueness, and which I will now discuss.

### **Diminishing opacity? The beginnings of a shift towards a more “translucent” venture capital product**

Clark and O'Connor's typology of financial products ranges from opaque, to translucent, to transparent. At the same time, they make it clear that products can move between these categories. They write:

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<sup>53</sup> Anecdotal accounts of venture markets support this. Caldwell (1987), Ross (1984), and Keane (1996), in their anecdotal tales of the Vancouver Stock Exchange, describe a clustering of social and business

We could imagine that financial products have a life-cycle beginning in the opaque category and ending in the transparent category (1997:100).

They return to their example of derivatives, commenting that as the design of such products becomes increasingly understood in the market, firms begin to offer the same products in more generalised form. "Transaction-specific information has become diffused through market networks, allowing other firms to design competing products using third-party market information" (1997:100).

There are reasons to suggest that venture capital may be shifting along the spectrum from an opaque to a translucent financial product. The processes of technological and regulatory integration outlined by O'Brien may be contributing to this. In the case of venture capital, it seems that technological innovations are having the most far-reaching impact, although they are accompanied by regulatory and market developments.

Here, it is helpful to return to the fourfold classification. Firstly, it appears that the mining and resource orientation of venture capital has eroded, particularly since the 1980s. If many venture exchanges developed to service resource industries, they now also help technology and light industrial ventures raise capital. The Vancouver Stock Exchange, for example, was almost entirely comprised of resource listings for its first 70 years of existence. Since the early 1980s, however, it has undergone considerable diversification. By 1990, approximately 30% of listed companies were non-resource, ranging from high-tech to hospitality, and by 1999, the figure was 46%.<sup>54</sup> Similarly, venture capital funds

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networks created and maintained in downtown bars and restaurants.

<sup>54</sup> Source: VSE reviews, 1990 and 1999.

are moving away from the resource sector. McNaughton and Green's (1989) survey of investors revealed that 39.3% of venture capital fund investment went to consumer and industrial products and services, 35.7% went to high-tech, and 20.2% went to resources and transportation. The e-commerce boom currently sweeping financial markets may be further augmenting the significance of the high-tech sector. The mining orientation that contributed to the opacity of venture capital, and the clustering of financial intermediaries in local centres, is thus diminishing as markets re-orient towards the technology sector.<sup>55</sup>

Secondly, the internet and other technologies have had a major impact on the availability of standardised information pertaining to venture stocks. Companies still suffer from a paucity of financial statements and historical information, but what is produced is increasingly accessible to interested parties. Most companies, however small, have a web-site where investors and others involved in the market can search for information. In the past, companies going public delivered their prospectus to the stock exchange in stacks of paper that could be measured in feet. Now this information is filed and accessed electronically. In Canada, the SEDAR (System for Electronic Document Analysis and Retrieval) web-site offers public access to a database of documents filed with securities regulators in all Canadian jurisdictions, including annual reports, financial statements, news releases and company prospectuses. A similar system (EDGAR) operates in the US under the supervision of the Securities and Exchange Commission (SEC). Furthermore, some "unstandardised" sources of information are now digitised. Bulletin boards on the

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<sup>55</sup> The re-orientation towards high-tech ventures does not necessarily increase transparency. Such ventures may be small, local, and have uncertain prospects, contributing to their opacity. There are reasons to suggest that technology ventures may also encourage the clustering of financial intermediaries. These are

internet offer chat-rooms and other forums where individuals can log-on, and read advice and tips on a number of stocks. Sites such as [www.ragingbull.com](http://www.ragingbull.com) specialise in junior issues. If the “world-wide web” has not made financial information ubiquitous, it certainly facilitates its diffusion, in some cases uncoupling it from local constraints.

The third factor – the need to meet management – does not appear to have diminished in importance. Technological innovations such as the Lexus Nexus database enable investors to search a large archive of press-reports and printed matter for records of management activity. This facility is used to uncover evidence of managers’ involvement in illegal or untoward activity. However, secondary forms of information gleaned from Lexus Nexus do not remove the need for “primary” sources. The venture fund literature, and my own interviews with financial professionals, suggest that the face-to-face meeting retains its popularity at both the pre- and post-investment stages. That said, cheaper and faster transport systems are reducing the friction of distance. As air travel, for example, becomes more cost-efficient, venture funds and others are expanding their investment “hinterlands”.<sup>56</sup>

Finally, although the criminal element has not been eradicated from financial markets, many venture exchanges have fought hard to rid themselves of their poor reputations. Regulation of the Vancouver and Denver exchanges tightened up during the 1990s. In

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explored in later sections. The point here is that Code’s arguments vis-à-vis mining and resource stocks are no longer as pertinent.

<sup>56</sup> Fund managers and other financial professionals who deal in senior stocks tend to have more “global” (or certainly less “local”) horizons. They fly halfway across the world to visit a company, and company management pay reciprocal visits. The critical factor is the size of the deal. Senior market deals worth tens of millions can easily absorb the costs of transatlantic airfares – the same is not true for a venture deal worth two million dollars.

Vancouver, for example, public governors were added to the exchange board of directors in an attempt to increase accountability and public representation. Perhaps predictably, increasingly vigilance on venture exchanges pushed “scam” activity to other marketplaces, including the over-the-counter markets.<sup>57</sup> In an internet sweep in September 2000, the Securities and Exchange Commission in the U.S. made charges against 33 individuals engaging in stock manipulation. For participants in the new, cleaned-up stock exchanges, however, the need to locate locally to avoid being “fleeced” in scams may have decreased.

### **In Summary**

As the four examples demonstrate, there are strong reasons to suggest that venture capital is an opaque product, even if this opacity is diminishing in the light of technological, regulatory and market change. The resource orientation, the lack of standardised information, the importance of assessing the management, and the prevalence of illegal activity suggest that a heavy investment in collecting, interpreting, and monitoring information is needed in venture markets. This may result in the local clustering of production discussed by Clark and O'Connor.

I want to progress from this more abstract discussion to a concrete example. I concentrate on one particular type of venture capital, namely venture *equities*. The next chapter traces the development of a venture capital exchange in the city of Vancouver.

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<sup>57</sup> E.g. the Canadian Dealing Network (CDN) and the NASDAQ Bulletin Board

## **VENTURE EQUITIES IN VANCOUVER: A BRIEF HISTORY**

### **The Development of a Venture Equities Market In Vancouver**

The growth of Vancouver as a centre for venture equities is largely attributable to the creation of a venture stock exchange in the city. The Vancouver Stock Exchange (VSE) was founded in 1907 to act as a marketplace for raising capital to finance emerging resource industries in Western Canada. Around the turn of the century, natural resources in British Columbia (BC) and surrounding areas served as a dual source of employment and economic growth, supporting burgeoning numbers of migrants. Industries such as lumber, mining, and oil drilling grew rapidly, and individuals, syndicates, and small companies sought financial backing to expand their businesses. Financial organisations headquartered in Montreal and Toronto (the major Canadian financial centres of the day) were reluctant to extend money to fund ventures when they had insufficient information, and local financial intermediaries emerged to fill the niche. Twelve prominent members of the Vancouver business community led by Donald Von Cramer, a Vancouver banker, and Charles Rand, a real estate dealer and mining broker, petitioned the British Columbia government to form a stock exchange, and in 1907 the Vancouver Stock Exchange Act incorporated the VSE (Caldwell, 1987).

Between 1877 and 1915, fifteen stock exchanges formed in BC, Seattle, and Portland, but only the VSE endured. The first trade on the VSE was one thousand shares of Alberta Coal that changed hands for 43 cents a share. Coeur d'Alene, Dominion Trust, and B.C Permanent traded at one and two cents a share. Thirty members kept the exchange going by paying the cost of their "seat" (\$250), in addition to monthly and annual dues.<sup>58</sup> One of the first seats on the fledgling exchange went to a German entrepreneur, Alvo von Alvensleben, who was purportedly backed by Germany's Kaiser Wilhelm. In its first year of operation, the volume of the exchange was 367,441 shares, worth \$136,440. Caldwell (1987) observes that trading had more than doubled by 1908, totalling \$291,000. The rate of growth in subsequent years was such that the Exchange was forced to move to larger premises (158 Hastings Street) by 1910. At this time, seats sold for \$1750, and there were thirty-five members. Members were predominantly individual business people, and every week-day they assembled in a semi-circle on the trading floor for the day's transactions.

In 1914, the discovery of petroleum in Alberta's Turner Valley catapulted the VSE into the limelight as an oil and gas trading centre. An exchange opened in Calgary that year to capitalise on the petroleum boom, but the more established Vancouver exchange continued to attract oil and gas ventures. The Calgary Stock Exchange, later (by 1971) renamed the Alberta Stock Exchange, eventually carved out a niche for oil and gas

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<sup>58</sup> The VSE, as with other stock exchanges, was (and still is) a private organisation run by its members. Memberships, or "seats" are purchased by financial intermediaries, bestowing upon them the right to transact on the exchange on behalf of clients, who pay a fee for the transaction. The commissions that can be earned through this activity determine the market price for a seat. Recently, however, exchanges have made moves towards demutualisation, and some industry commentators predict that it may not be long before the general public can own shares in stock exchanges. The Toronto Stock Exchange (TSE) was the first in North America to take the step towards becoming a for-profit company, and received regulatory approval to proceed effective April 3<sup>rd</sup>, 2000. Seatholders received common shares in the capital of TSE Inc.

financings, and competed with the VSE for these and other venture listings. By the 1920s, booming business allowed VSE members to grow from individual operations into partnerships or independent companies. Members often passed the ownership of a seat from parent to child. Occasionally firms merged and reappeared on the members list with new, or elongated, names. Until the onset of the Great Depression in 1929, trading boomed, and the VSE moved three times in search of bigger premises. During the stock market crash, however, trading values on the VSE dropped from a high of \$133 million to a low of \$1.2 million.

### **The Post-war Period**

In the post-war years, prosperity returned to Vancouver with a steady rise in trading volumes and values. This was, in part, a result of large-scale resource production opening up in the interior of the province, and in Alberta. Between 1947 and 1950, a series of oil discoveries in Leduc, Alberta, listed on the VSE. In 1954, the VSE-listed Bethlehem copper mill in the Highland Valley became a site for large-scale open-pit mining. Despite these and other successes, trading on the exchange did not regain pre-crash momentum until some 35 years later.

It was during the 1960s and 1970s that the VSE experienced dramatic growth as a result of major mineral discoveries. In 1964, Dynasty Explorations Ltd, a successful public mining company, rose from \$1 to \$15 a share, prompting a staking rush and 2000 claims

in the Faro district of the mine. In the same year, Lornex Mining Corporation Ltd found copper porphyry deposits on its property in Highland Valley. The mine was developed by the mining corporation, Rio Algom, into one of Canada's largest copper and molybdenum mines worth several million dollars. In the east, however, a less successful venture, Windfall Oils and Mines Limited, prompted the Ontario government to commission a report that later had implications for venture capital across Canada. In 1964, the Toronto Stock Exchange (TSE) was embroiled in scandal over the manipulative disclosure of assay results by Windfall. In the light of the investigative report, the TSE enforced far stricter rules on venture companies, a move that drove junior issues west to the VSE. Ross (1984) comments that Ontario's decision was, "the best thing that happened to the VSE" (1984:84). Further mining successes caused trading values to almost double between 1968 and 1969, and seat prices increased to a record \$65 000.<sup>59</sup> The Exchange moved again on two occasions, first to 540 Howe Street, and then later to 536 Howe.

The composition of members also underwent a subtle change in the 1960s and 1970s. The VSE Annual Review published in 1970 listed 52 members, including Brink, Hudson & Lefever (headed by H.W. Lefever), Wolverton & Co (headed by N.E. Wolverton) and Bongard Leslie & Co (S. Mann). As these examples suggest, family partnerships still dominated. The vast majority of members were also Vancouver-based. That said, six Toronto-based investment dealers had VSE memberships by this time, and Manitoba and

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<sup>59</sup> A BC and Yukon Chamber of Mines report estimated that over \$150 million of capital investments were underway at this time, including locations such as Endako Mines, Boss Mountain, Clinton Creek and Westcon Mines.

Saskatoon were also represented.<sup>60</sup> In the early 1970s, a Quebec based firm, Bouchard & Co Ltd, also purchased a seat.

### **The 1980s: upheaval on the VSE**

By 1980, the Exchange had 48 members, 1137 listed issues, and monthly trading values of around \$370 million. Member firms were recording large profits, in part derived from illegal and “scam” practices of the sort outlined in chapter three. Promoters and underwriting firms “hyped” stocks, and some resource companies with no proven assets reached over \$50 per share. The confidence underlying investor purchases in such stocks, however, evaporated on Black Friday in 1984. In stock markets around the world, prices fell dramatically, and at the VSE, a selling frenzy caused several resource stocks to plummet, resulting in losses of \$40 million in ten minutes. The share price collapse of Beauford Resources, Marathon Minerals, and Rencon Mining led to criminal sentencing of financial professionals involved in the deal.<sup>61</sup> The overvalued stocks were common knowledge “on the street”, and regulators faced severe criticism for their unawareness of the obvious. A VSE Committee subsequently reviewed listings regulations, and doubled the minimum allocated working-capital requirements in response to their finding that a

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<sup>60</sup> I use the terms “investment dealer” and “brokerage house” interchangeably in this document. The former is the correct Canadian term, but most financial professionals use the latter, more old-fashioned, term. In both cases, it refers to a financial organisation that may trade, underwrite, or sell financial securities. Most investment dealers/ brokerage houses have separate trading, corporate finance, and sales departments. VSE member firms usually termed themselves brokerage houses, although, more recently, the designation “investment dealer” has become more common.

<sup>61</sup> Although the technicalities and the prosecution process are difficult to fathom, it is likely that those sentenced engaged in manipulation of the stock, which may have included falsified geologists results and press releases, as well as buying and selling between themselves to simulate market interest.

high proportion of junior resource companies had insufficient funds to carry out their exploration programs.

Partly in response to the public failure of many mining corporations, the exchange underwent product diversification during the 1980s.<sup>62</sup> Other industries were beginning to emerge and grow on the BC stage, including tourism, high-tech, biotech, and manufacturing. By 1987, non-resource listings numbered 700, with advanced technology and junior industrials leading the way. The VSE also branched out geographically. American-based resource and technology companies listed on the Exchange, attracted by its less stringent requirements, and low-listing costs. By the mid-1980s, it was estimated that the US group represented 20% of the VSE's listing base. The Pacific Rim was also targeted by the Exchange. VSE marketing representatives made several preliminary trips to Asia to encourage companies to list. This diversification also contributed to raising global investor awareness, and foreign investing on the VSE "took off" from the early 80s.<sup>63</sup>

Regulatory and technological developments had a considerable impact on the VSE during the 1980s. Canada's "Little Bang" in 1987 culminated in the radical reconfiguration of the entire financial services industry. Regulations that had kept the "four pillars" of banking, securities dealers, trust companies, and insurance firms separate were

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<sup>62</sup> Increasing labour costs and more stringent environmental regulation also resulted in mining firms leaving BC for other locations during this period.

<sup>63</sup> Keane (1996) estimates that 35% of investment interest in the 1980s came from BC, 25% from eastern Canada and the US, 15% from Europe and the rest from the Orient and the Middle East. The vast majority of these global investors, however, did business through Vancouver-based (or certainly Canadian) brokers.

dismantled. For the first time, banks were permitted to purchase securities firms.<sup>64</sup> From the late 1980s the VSE member list changed considerably, as independent Vancouver securities firms were bought up by (largely Toronto-based) national banks. By 1990, Nesbitt Thompson, RBC Dominion, and Scotia McLeod had acquired a VSE seat by purchasing local member firms. New regulations also permitted international players to enter the Canadian market, and Merrill Lynch Canada, Bunting Warburg and Dean Witter Reynolds (Canada) soon had VSE membership. Some independents chose to merge in order to fend off the advances of the big players<sup>65</sup>, and a wave of consolidation occurred.

If the exchange was once the domain of independent, Vancouver-based, venture capital specialists, by 1990, the membership profile was much more diverse. Some of the remaining independents became “boutique” firms specialising in a particular niche. Golden Capital, for example, targeted an Asian market from their Vancouver office, and Peters & Co. focused specifically on the oil and gas industry from an office in Calgary.<sup>66</sup> The influx of national and international players resulted in larger “financial supermarkets” that offered a full range of services, including comprehensive money-

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<sup>64</sup> It is estimated that five bank-owned securities firms now handle 60% of the country's equity trading, and 80% of the fixed income business.

<sup>65</sup> Vancouver based Canaccord Capital Corp, for example, has made four acquisitions since October of 1998: CM Oliver and Brink, Hudson and Lefever Ltd (both Vancouver based); Montreal based Whalen, Beliveau and Associates and London based T. Hoare and Co. As a result, the firms retail sales force has gone from 280 to 650. Approximately half its workforce – housed in 23 branch offices (up from 7 in October 1998) – is based outside of BC. In 1999, only 18% of its revenue came from trading on the VSE. As Peter Brown, CEO explained to the Financial Post, “We had two choices. With less than 300 sales force, you could either expand or cut the firm in half because the costs of running a firm of that size are just too substantial. There is no economics for a firm of under 300 brokers.”

<sup>66</sup> Boutique firms can be favoured for some investors. For confidentiality reasons, some companies and individuals prefer to have their business handled by companies other than bank-owned firms.

management, and global equity and bond trading<sup>67</sup>. For these firms, membership of the VSE was just one component of their organisation, and most were members of other major Canadian and US exchanges. The appearance on the Vancouver scene of discount brokers offering execution-only service at low-cost, added to the medley.<sup>68</sup> TD Waterhouse purchased a seat, and other discounters began to share seats with their full-service counterparts (e.g., CIBC Investors Edge and CIBC World Markets).

A particular technological development also transformed the VSE during this period. By the mid-eighties, the trading floor was once again proving inadequate, and the VSE contemplated another move to larger premises. In the event, however, the Exchange chose to eliminate its trade floor altogether, and broke new ground by becoming the first fully automated exchange in Canada. In 1988, the Vancouver Computerised Trading (VCT) system was launched, and by 1990, all stocks were trading via computer networks, and the trading floor closed. VCT terminals were placed in traders' offices, and trades were entered, matched, and settled electronically.

It was also during this same period that the exchange found itself battling a major image problem. A 1987 article in the influential *Forbes* magazine branded the exchange, "the scam capital of the world".<sup>69</sup> Negative press drew on examples such as the 1980-1 New Cinch Uranium scandal, where stock prices rose from 75 cents to \$29.50 before collapsing upon the news that the assay reports were false, and the Carter-Ward affair,

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<sup>67</sup> By the early 1990s, in the light of further deregulation, some banks also started to perform insurance and trust functions.

<sup>68</sup> Discount brokers usually execute orders for a low commission. They challenge full-service brokers who charge more, but offer additional services such as advice.

where market manipulation and bribery of a fund manager resulted in a civil action in which \$16 million in damages were awarded.<sup>70</sup> Barron's further damaged the credibility of the VSE in 1989 by stating, "The VSE is like a giant chain letter to Europe and the US saying 'Send us your money' . You look at the structure and it looks real. But it's not." In 1990, Prime Time aired an expose of the Exchange, and three years later, the British television program, Dispatches, highlighted the case of the West Midlands superannuation fund that lost \$10 million when VSE companies Cross Pacific Pearls and Tarn Pure Corp collapsed and de-listed.

In response, a commission of inquiry looked into regulation of the VSE in 1993. Glen Clark, then Minister of Finance and Corporate Relations, appointed lawyer, James Malkin, as Commissioner to head a policy review of the exchange. The report, published in 1994, highlighted ineffective surveillance and enforcement as factors that contributed to making the exchange a "forum for shams, swindles and manipulations" (Matkin, 1994). The VSE, it said, was compromised by its split role as public regulator, self-regulator, and private business. The other regulators, the British Columbia Securities Commission (BCSC), formed in 1986, and the RCMP Commercial Crime Unit, were acknowledged to "do their best" with stretched resources. The VSE and BCSC were criticised for failing to make information about insider trading and the record of directors

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<sup>69</sup> Forbes, May 27, 1987.

<sup>70</sup> David Ward, imprisoned for 3 years, was found shot dead after his release, his murder speculatively linked to the Mafia who were said to engage in money laundering through the exchange.

and promoters easily accessible to the public. The excessively poor quality of many companies on the Exchange was attributed to lax listing standards and enforcement.<sup>71</sup>

Regulators were not the only group to attract reproach. The Report referred to a “culture” shared by market professionals such as brokers and promoters. Some member firms operating as underwriters were condemned for listing companies with no prospects for legitimate business development. Promoters attracted similar blame for their role in pushing “shell” companies for short-term trading profit only. To deal with these challenges, the Matkin report proposed several changes. The VSE’s self regulatory responsibility for administering broker discipline was shifted to such an external organisation as the Investment Dealers Association. In addition, the BCSC required serious restructuring, involving greater professional participation. Finally, it was also recommended that promoters be brought inside the regulatory system, and the VSE improve efforts to provide information.

While the Matkin Report was not universally applauded, its publication signalled the beginning of a “clean-up” of the VSE.<sup>72</sup> A series of VSE Presidents, Superintendent of Brokers, and BCSC Chairs took a harder line vis-a-vis crime. In 1995, Michael Johnson took the helm of the VSE with the mandate to “clean house”, and launched publicity offensives in an attempt to rid the VSE of its “Wild West” image. By the end of the

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<sup>71</sup> In 1977, Chris Caulton, VSE Vice President of Listings, faced investigation on 93 criminal counts, including accepting bribes, breach of trust, and conspiracy to commit breach of trust.

<sup>72</sup> The BCSC published a reponse indicating its disapproval of its portrayal in the report. Many broker-dealers were also critical, arguing that the red tape of bureaucracy would strangle the exchange.

1990s, however, a far more significant overhaul of the exchange was proposed as part of a large-scale reorganisation of Canadian stock exchanges.

### **The Birth of the Canadian Venture Exchange (CDNX)**

For much of its history, the VSE competed with other provincial exchanges in Canada for venture market business. The Winnipeg Stock Exchange opened in 1908, and was soon followed by the Calgary (later Alberta) Stock Exchange in 1914. The Montreal and Toronto Exchanges, although predominantly concerned with senior companies, also possessed separate junior listings. Each exchange traditionally served the needs of provincial companies, but there was also a degree of competition. Capitalising on, respectively, mining and oil/gas, the VSE and the ASE established themselves as the pre-eminent centres for venture capital in Canada by the 1970s.<sup>73</sup> This dominance was somewhat threatened by the 1991 creation of the Canadian Dealing Network (CDN), a subsidiary of the TSE.<sup>74</sup> In 1997, \$12.6 billion worth of shares changed hands on the CDN, almost as much as the VSE and ASE combined. An over-the-counter dealer market, the CDN was home to over 400 junior companies.<sup>75</sup> However, according to

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<sup>73</sup> By the 1990s, the Winnipeg Stock Exchange represented less than 0.1% of the dollar value of business on all Canadian exchanges.

<sup>74</sup> CDN actually began life as the Canadian OTC Automated Trading System (COATS) in 1986. It fell under the auspices of the Ontario Securities Commission, which sought to bring some order to the often chaotic selling of unlisted stocks in Ontario. However, having the provincial securities regulator running a stock trading system seemed to invite a conflict of interest, and in 1991, the system was transferred to the TSE and renamed CDN (Taylor, 1988).

<sup>75</sup> Over-the-counter, or OTC markets are quote driven dealer markets where certain brokers, known as market makers, act as buyers and sellers. They own inventory in a stock and electronically post the prices at which they are prepared to buy and sell shares to investors. There is no trading floor and all trades are

commentator John Kaiser, CDN made the VSE look like a paragon of virtue. Market-makers on the CDN frequently manipulated the market, and financial disclosure for the listed companies was poor. One observer noted that the CDN operated in the spirit of “laissez unfair”.

By the late 1990s, major restructuring of Canadian exchanges was on the agenda. The existing system was inefficient. Each exchange used a different trading engine, and most investment dealers paid for multiple memberships and computer systems. In addition, overlapping functions, and infighting for the same business, hampered the competitiveness of Canadian exchanges in an increasingly cut-throat global marketplace. Derivatives and senior issues were split between Montreal and Toronto, and neither exchange had the capacity to compete effectively with New York or other global centres. Following an October, 1998, meeting of Canadian exchange representatives in Kuala Lumpur, John Carson, then senior vice-president of the TSE, painted a stark picture of a Canadian system “left behind”. Noting the computerisation and centralisation occurring in financial markets across the world, Carson reportedly called for the reorganisation of Canadian exchanges (Gibbens, 1999).

The consequence was a pan-Canadian reorganisation of stock exchanges along lines of market specialisation. Paul Halpern suggests that the restructuring followed the logic of corporate restructurings: “With increasing global competition, firms must focus on their strengths, often requiring elimination of peripheral products and services. In other

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conducted electronically or over the telephone. OTC markets tend to have lower regulatory standards than stock exchanges for both listed companies and brokers.

situations, firms seek economies of scale” (Halpern, 1999) Alternative proposals, including a single Canadian stock exchange, or a merged Montreal-Toronto exchange, ran aground because of regional considerations, federal-provincial jurisdictions, French-English relations, and entrenched interests. The plan was for the TSE to take control of trading in all senior stocks, leaving Montreal with all derivatives trading. A single western exchange, based in Calgary with operations in Vancouver, would handle all junior equities trading. The rationale was that the venture exchange would act as an incubator for fledgling companies, the strongest of which would subsequently graduate to the TSE, the country’s senior market.

On November 29<sup>th</sup>, 1999, the fragmented venture exchanges – the VSE, the Alberta Stock Exchange (ASE), and the Canadian Dealing Network (CDN) - merged into a single venture capital exchange, the Canadian Venture Exchange (CDNX). In combining venture activity, it is hoped that the CDNX will become a credible alternative to the NASDAQ market, and its OTC Bulletin Board, which has become the preferred listing route for technology juniors in North America.<sup>76</sup> As a result of the merger, the 57 CDNX memberships are spread across the country, although the majority are based in Vancouver and Calgary. The Manitoba Government introduced legislation in May 2000 that clears the way for the Winnipeg Stock Exchange (WSE) to join CDNX, and the transfer is expected to take place later this year. At the insistence of the Quebec government, a small junior market still exists in Quebec for Quebec-based junior equities. The CDNX is run from Vancouver and Calgary, but the exchange intends to open offices in most

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<sup>76</sup> NASDAQ is more prestigious than any Canadian equivalent, and also far larger, offering listed companies exposure to more investors.

provinces.<sup>77</sup> Michael Johnson, VSE president since 1995, lost out in the bid to head the CDNX to William Hess, former chairman of the Alberta Securities Commission.

Questions of location proved somewhat political, although such technicalities were a matter of supreme indifference to investment dealers, many of whom have offices in both cities. Peter Brown, the chairman of Canaccord Capital Corp, and one on the most powerful brokers in Vancouver, was quoted in Macleans as saying, "It's all cyber-technology anyway."<sup>78</sup> The head office was eventually awarded to Calgary. In recognition of the concentration of corporate headquarters in Calgary, the city also received the corporate finance division. Vancouver maintains most operational functions, including trading and surveillance. It was estimated that there were three times as many VSE trading terminals in brokerage houses than ASE terminals, and so all trading moved onto the VSE's technology platform, renamed TradeCDNX. Staff at the exchanges spent the summer of 1999 harmonising trading rules, writing new manuals, and training traders to use the system. After a test session on October 9<sup>th</sup>, all Alberta trading moved to the Vancouver platform. Traders now conduct business from offices across the country through the automated trading engine.

Initial signs suggest that the CDNX has been extraordinarily successful in its first few months of operation. The Venture Exchange averaged 35 000 trades a day in the first quarter of 2000,<sup>79</sup> whereas previously the average for the VSE and ASE combined was

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<sup>77</sup> The sharing of the Exchange functions between Calgary and Vancouver was dubbed by one journalist as "a typically Canadian compromise." (Canadian Press Newswire, April 23, 1999)

<sup>78</sup> Maclean's (Toronto edition) v. 112 (18) May 3, 1999: p44

<sup>79</sup> The CDNX peaked at 60 000 trades in the first quarter.

7500.<sup>80</sup> The composition of listed companies on the exchange continues to reflect the resource orientation of its predecessors: of 2284 listings, 40% are mining, 14% oil and gas, 13% technology, 6% manufacturing, 3% financial services, and 24% “other”. New listings in 2000, however, comprised 32% “industrial-based”, 12% “resource” and 56% “capital pools”. Between November 1999 and March 2000, the CDNX Index based on a basket of top stocks increased from 2000 to 4500.<sup>81</sup> The exchange was fortunate to launch at a time when its three major specialisms – technology, mining, and oil and gas - were all experiencing bull markets. It is also suggested that the rebirth of the VSE as a national exchange piqued investor interest, and attracted clients from Ontario, as well as luring back previously wary investors.

### **In Summary**

The venture equities market in Vancouver has been repeatedly reconstructed during its history. Technological change altered the way trading is conducted, moving traders from the floor of the exchange to computer terminals by 1990. The regulatory environment also changed, particularly from the mid-1980s when regulators became stricter in their enforcement of the rules. Further, the market itself has evolved, resulting in reduced resource dominance, and increased technology and industrial presence. It is likely that the

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<sup>80</sup> The VSE, at its peak, averaged 27 000 trades a day.

<sup>81</sup> The sector indices all showed increases. The CDNX Mining index went from approximately 2000 in December to 4500 in March. The Oil and Gas index demonstrated a more cautious upward trend, rising from approximately 1800 to 3000. The CDNX Technology Index showed the most explosive growth, moving from 2000 to 8200 in the Nov-March period. The apparent loss of confidence in the technology sector affecting financial markets at the time of writing may depress the index.

production of venture equities has changed in response to these external factors. In the three chapters that follow, I consider three services involved in the production process – trading, corporate finance, and sales – and examine how their informational and locational needs may have been reconfigured in the light of these developments.

## THE TRADING FUNCTION

In chapter four I provided a general overview of the venture equities market in Vancouver. To this juncture, I have followed the example of Clark and O'Connor (1997), and referred in general terms to the “production” of venture equities. I now want to rectify this homogenisation of the production process by delineating its constituent parts. In this chapter, and the two that follow, I outline the trading, corporate finance, and sales functions. Involved in heterogeneous ways in the production of venture equities, each service constitutes an individual department in most Vancouver Stock Exchange/ CDNX member firms. Briefly, trading departments execute orders to buy and sell shares, corporate finance departments prepare venture companies for listing on the Stock Exchange, and sales departments take orders to transact shares in listed companies.

Each chapter is divided into two principal sections. First, I explore the nature of each service – whether trading, underwriting, or sales – in venture equities markets. Second, I examine the specific informational requirements of each service, drawing on the distinction between standardised and unstandardised information made in chapter two. Traders, for example, need market data, but also financial gossip. Services locate where these informational needs can be best met, resulting in diverse geographies of trading, corporate finance, and sales activity.

One point needs to be noted. It became apparent during the research process that the different services have changed over time. The automated trading systems currently in use would be unrecognisable to those traders who gathered on the Vancouver Stock Exchange floor in 1907. O'Brien (1992), we recall, suggests that technological and regulatory changes are impacting financial markets. In Vancouver, technological developments such as computer networking and the internet have been instrumental in the transformation of the trading and sales functions. Corporate finance, by contrast, has changed in response to the regulatory environment, although not in the ways envisaged by O'Brien. Despite the deregulatory changes instituted by the Canadian government in the mid-1980s, provincial and self-regulatory bodies, including the Exchange itself, are *more* rigorous in their regulatory role. Furthermore, shifts largely unconnected to either technology or regulation – the move away from resource ventures, and changing investor demands, for example – also contribute to the remaking of the Vancouver market.

For these reasons, I make a temporal division in my discussion of each service. In each case, I contrast the service, its informational, and locational requirements for the period 1970-1990, to the period 1990 to the present. To some degree, the choice of 1990 as a turning point is arbitrary. Certainly, trading in Vancouver made a decisive break from a floor-based to an automated system in that year. But, technological and regulatory changes affecting corporate finance and sales evolved more gradually through the 1980s and 1990s. For the sake of clarity and consistency, just the single divide of 1990 is used.

### **“The horse drawn cart”<sup>82</sup> – Trading on the Vancouver Stock Exchange, 1970-1990**

Trading of equity occurs when buyers and sellers of stock come together to transact. In Vancouver, the VSE was established to act as a central place for the trading of venture equities. Throughout the period 1970-1990, the Exchange operated a trading floor. Traders brought customers' orders from their brokerage houses, written on tickets colour-coded blue for buy, and pink for sell. Some houses had runners that moved between the floor and the house, delivering new orders and returning with filled ones. Others had a greater degree of automation, electronically transmitting orders to the trader via a printer located on the floor. These orders, however transmitted, went into the trader's book. Traders then consulted their books to find out the price at which their customers were prepared to buy or sell, and yelled this out. The information contained in the books was jealously guarded, as one interviewee explained:

The books were in the traders hands - physically in their hands. It wasn't shared with anyone else. You wouldn't know what orders I had in my book, and I wouldn't know what you had in your book (K).

Round the perimeter of the floor, there was a raised chalk board. Boardmarkers listened to the prices given by the traders, and wrote them by the stock symbol. Each member firm had a different colour or pattern jacket, and boardmarkers identified the traders by

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<sup>82</sup> The comparison between the horse drawn cart and the automobile with respect to trading was made by an interviewee. Others would dispute the implication that trading floors are a more “backward” and less

these jackets. If there was a better bid or offer, they rubbed out the previous one, and replaced it. Similarly, if a bid was cancelled because it had already been filled, they removed that price and established a new market. Below the stock symbol, they made a small notation of the trader involved, so if someone else on the floor had an offsetting order, they could search out the trader and negotiate a deal. The VSE thus operated as an auction market where, if we recall from chapter two, all transactors are able to bid and offer on stock. Traders search for the best counterparty and find a mutually agreeable price.<sup>83</sup>

Once a counterparty was found, a ticket was written, stating the stock, the amount, the price, and the counterparties. The tickets went to a teletype station on the floor where trades were punched into perforated tape. This “tickertape” enabled trade information to be transmitted to locations across Canada. Member firms translated these into the blue ink tapes at which people could look.

At the end of the day, when the bell rang to signal the end of trading, traders often threw their tickets into the air. These tickets represented day orders that had not been filled. Limit and other orders were kept in the traders’ books.<sup>84</sup> The days’ trades were then communicated to the clearinghouse for settlement. In the Vancouver market, the

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efficient method than electronic trading systems. Indeed, some of the world’s most important exchanges (including the NYSE) retain a trading floor.

<sup>83</sup> Most stock exchanges operate a dealer, not auction system. The NYSE and NASDAQ, for example, both operate market-making dealer systems. Participants in dealer markets save on search costs because prices are readily available; in auction markets, however, participants do not have to cover the bid-ask spread.

<sup>84</sup> A variety of different orders exist. An investor can make a market order, which is an order to buy or sell immediately at the best possible price. Limit orders are orders to buy or sell at a specific price with no time limitation. A day order is cancelled if it is not filled the day the order is taken. A stop loss order is an open

purchaser had to provide the cash, and the seller had to deliver the stock, within three working days. In a clearinghouse, the trades of all exchange members are recorded each day, and netted out, meaning each member settles only with the clearinghouse. At the VSE, as with other exchanges, settlement was a manual process, as cheques and stock certificates were hand-delivered from member firms to the clearinghouse.<sup>85</sup> Some discrepancies (for example, the buyer and seller noting a different price, or volume) were resolved by following a “paper trail” to the waste-paper baskets on the floor of the Exchange.

As new technologies became available, they were gradually incorporated onto the VSE floor. A former head of trading explained one such technological “revolution” in the early 1980s:

When the Exchange moved to 536 Howe we expanded the size of the trading floor. Again, we were using chalk on the boards and all that. Then this great revolution came in and we went to felt marking pens. Don't laugh, this was big time! (U)

In the same period, teletype machines were replaced with computer terminals that hooked into a mainframe. Data entry officers sat in front of automated belts, and the tickets moved past in front of them. This information, often delayed over an hour in busy periods, went to major quote vendors in Canada, and was displayed across the country.

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order to sell at a certain price, and is intended to prevent investors from losing large sums if the market starts to slide.

<sup>85</sup> Settlement in the City of London was equally manual. The “walks” of the banks were conducted each hour to pick up cheques and other paper to pay into the Bank of England (Leyshon and Thrift, 1997).

By the mid-1980s however, such information delays were increasingly unacceptable, and new solutions were sought.

**“The automobile”: Moves to complete automation and the “death” of the VSE floor, 1990 -**

We went live with the trading system in 1988, and we closed the trading floor in 1990. It was sad. We had a big party, a real big party. But it was the only direction for us to go. My family – my father had been a floor trader, my younger brother was a floor trader, I was the governor of the floor of the stock exchange, my daughter is in sales – we were sad to see it disappear. But it was the best thing for this market. We could not have done the volumes that we’ve done. We could not have made the progress that we’ve made if we had not gone automated back then (U).

In the early 1980s, with growing numbers of traders competing for space in increasingly cramped facilities, the VSE was forced to consider moving to a new space. At the same time, developments in information technology meant that the Exchange would have to spend considerable sums upgrading the floor to “modern” standards. By 1985, the Board of Governors agreed on a different course of action, and one gaining in popularity at exchanges throughout the world – a shift to a wholly automated trading system.

The creation of an automated trading engine is, in fact, only the first of several technological innovations to impact the Exchange since 1990. As O’Brien (1992) suggests, technological change is having a major impact on financial markets. Since the mid-1990s, increasingly sophisticated technologies facilitated the rise of order

management systems, changing how trading is conducted. Internet trading is also poised to play a important role, although in Canada, national and provincial legislation has curtailed its development. In the following discussion, I outline how trading evolved in response to such technological opportunities.

The VCT (Vancouver Computerised Trading) system, introduced at a cost of \$8 million, made the VSE the first completely automated stock exchange in North America.<sup>86</sup> Although the Toronto Stock Exchange developed CATS (Computer Assisted Trading System) in 1979, it was used to trade only the exchange's less active stocks. The majority of stocks continued to be traded on the floor. Initially, stocks were phased into the VCT system, but by 1990, all stocks traded on the automated system, and it was then the floor finally closed. VCT terminals located in the office of the dealer are used to enter buy- and sell-orders, which are matched and filled by the trading engine. As well as facilitating trading, the VCT system also acts as an information source, providing detail on the current bid and offer prices, volumes recently traded at each price, and a complete order book showing the available orders by broker, by volume offered, and by price.

The automated system was a response to a number of problems faced by the VSE. Firstly, VCT facilitates far greater volumes without requiring a sprawling trading floor. The system also improves the rapidity of information dissemination:

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<sup>86</sup> One interviewee (U) commented that the move to an automated system changed the gender profile of the trading business. Female floor traders numbered only 1 or 2 at any one time, but the new trading desks were more mixed. It was suggested that women in "back office" roles prior to the introduction of VCT

During our busiest markets – mid-80s – we were maybe an hour and a half, to an hour and fifty minutes, behind on quotes going out, simply because of the volume that was going through. And that doesn't make for a very efficient marketplace, because you're that far behind on information. It's like going to an auction and bidding on something, and finding out that they sold it an hour and half ahead of time, and that offering isn't there anymore... Quotes – if they're more than a second behind now, that's not good. Now if it's more than a second behind, it's not a proper marketplace (U).

An automated trading system was also part of a broader strategy to improve the reputation of the VSE. VCT promised to improve transparency on the Exchange, and in so doing, make it more appealing to customers. With all trading activity going through an automated system, any “shady” activity is easier to detect and prove.<sup>87</sup> A VSE employee who designed VCT suggested that transparency was the overriding driver in the process:

I guess the real genesis of our trading system was the view that we needed to move away from the manual way of trading to a more reliable, visible way of trading – a more transparent marketplace... Given the nature of the marketplace here – it's high-risk – there was a view that we needed to make the market more transparent. We believed we could do that by making the books more visible. And the way we could do that was to capture them electronically, and make them visible to everybody participating in the marketplace (K).

These changes were not popular with all interested parties, however. Members, who had to pay for the new system, were divided over its merits. Some saw their trading advantage slipping away as automated trading made order books fully transparent:

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were familiar with the technology, and therefore well placed to assume full trading roles when the system moved off the floor.

<sup>87</sup> I spent some time with the security department at the CDNX. The systems they now have in place detect any “abnormal” trades and implement an immediate freeze . Alerted by a noise or flashing symbol, staff

That was a time when if you really thought you had some secret information you could profit from, you wouldn't give the information out because someone else would profit from it...The notion that somehow information gave you power.... So as you took what they viewed as power, which was information, out of their hands, and put it in a community exchange, and then took that and put it in the public domain, I'm sure a number of them just saw things fleeing away (D).

Developments in the past five years, however, suggest that the VSE's move away from a trading floor was only the start of a major technological overhaul. Order Management Systems (OMS) are one of the more recent innovations to impact the trading process at the Exchange. OMS are software packages that change the way traders communicate orders to the VSE. VCT systems are comprised of hardware and software. Traders purchase a VCT workstation, and use this for the sole purpose of trading on the Vancouver Stock Exchange. Other exchanges have their own systems which have to be purchased separately. Toronto, for example, has "CATS" terminals.

OMS systems are software-based. In Canada, OMS applications are provided to investment dealers by service providers such as ISM, Dataphile, and ADP. Once installed on a computer, the system can route orders to any Exchange. As "smart" systems, the OMS recognises the stock-symbol entered by the trader, and sends the order to the most appropriate exchange. Any order for a Canadian venture stock, for example, goes to the CDNX. One trader detailed the ISM network:

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then investigate before allowing the trade to proceed. All trades are recorded, and suspicious activity can be traced back several years.

ISM....has gateways that connect to Montreal, CDNX. They've got gateways that connect to the Toronto Stock Exchange. ISM has gateways that connect to the New York Stock Exchange, the Chicago Board of Trade, the Chicago Options Exchange. They're a very broad network that will route a traders orders to whatever marketplace they want (U).

Once entered into the system, orders go directly to the trading engine at the exchange. These "gateways" between investment dealers and exchanges, however, cannot be opened by the service provider unless the investment dealer has membership of the exchange. As trades come into the trading engine of the exchange, the member number and trader identification are verified before the order is allowed to proceed. Once in the trading engine, the trade is matched to another order, and it "trades out". The trader is then notified by the OMS system. On the CDNX, the entire process takes two to three minutes. The introduction of OMS eradicates the need for traders to maintain separate computer systems for each exchange.<sup>88</sup> OMS systems now rival Vancouver Computerised Trading (VCT) terminals in terms of orders brought into the CDNX, and experts at the CDNX predict it will not be long before all orders come via OMS systems.<sup>89</sup>

Some industry commentators suggest that new technologies may make stock exchanges obsolete. Currently, Canadian regulators are considering proposals for ATs (Alternative Trading Systems), which, if authorised, will trade stocks currently listed on the CDNX and other Canadian exchanges. Stock exchanges are government mandated and regulated,

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<sup>88</sup> In so doing, OMS represents a step towards a common trading platform for all Canadian exchanges.

<sup>89</sup> The TSE is withdrawing CATS workstations and insisting that all its order flow comes through OMSs that are STAMP compliant – a protocol that ensures all message flows coming into the exchange "speak the same language".

and have historically operated as mutual, non-profit societies.<sup>90</sup> ATSS are private, for-profit entities that perform the functions of exchanges, but are currently regulated as investment dealers. ATSS have their own trading engines, and want the right to declare themselves a stock exchange. Interested parties would be able to transact directly via the internet. Their viability has been considerably boosted as developments in electronic trading have made them cost-effective venues. At present, ATSS in Canada are not permitted to trade Canadian stocks, but Canada may follow the example of the US, where similar legislation was recently rescinded. One such ATS, Versus Technologies (E\*Trade Canada), is currently a CDNX member, forced to trade through a registered exchange until such time as the law changes.

If ATSS are permitted, these “virtual” marketplaces could signal the end of stock exchanges as we now know them. Members of the public will be able to trade for themselves through an internet site, paying a commission to the ATS for the privilege. As one CDNX technologist colourfully put it:

You're going to have virtual stock exchanges... If you've got the proper sign in code, you can be wherever you want in the world and come in over the giant cloud in the sky that's holding the internet, and just do your transaction.... Some of the work I'm doing now on the internet, I might be putting myself out of a job. I just sure as hell hope they give me a good severance package (U).

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<sup>90</sup> In response to the challenge of ATSS, some stock exchanges, including the NYSE, are considering demutualising and going public. The TSE, as we have seen, became the first stock exchange in North America to take this step in April of this year.

## **The informational requirements of a venture equities trader**

The role of a trader appears relatively straightforward – they have to execute customer trades at the best possible price. In practice, however, a trader has a series of orders in his or her book, and has to juggle these with precise timing to maximise profits. Managing the book and the accompanying risk is the most challenging task for any trader.

What information does a trader of venture capital stocks require? The first is highly standardised – a trader needs past market data, including prices, volumes, and counterparties. Although it is a well-known maxim that past prices are not a sound indicator of future performance, an overview of recent trading activity is helpful. Second, a trader needs up-to-the-minute market information. This is partly comprised of standardised data on current prices and volumes. However, current market data also has to be interpreted, and a trader observes and draws conclusions from the activity of other traders. Standardised information may reveal that trader “X” is trying to sell a large block of shares. What other traders will want to know, though, is why, and how other traders are responding. To find out, traders observe and infer, gathering information of a less standardised variety. Third, a trader needs information that will assist him or her to predict future market movements. This might include material about listed companies, or information about new issues coming to the market. Once again, this can take standardised and unstandardised forms. Official press releases and financial reports may

help traders, but gossip and rumour are an alternative and widely-used information source.

The triptych of information requirements outlined here are common to all traders. As suggested in chapter three, however, those involved in the production of venture capital make a peculiarly heavy investment in the collection, interpretation, and monitoring of both unstandardised and standardised information. Characteristics of venture capital – namely the resource orientation, the lack of formal documentation and records, the importance of management, and the tendency to attract “scam” activity – contribute to this. In the sections that follow, I study how this informational “burden” has impacted trading activity, and its geographical location for the two periods 1970-1990, and 1990 to the present.

## **Trading, Information, and Location**

### **1970-1990**

How was the information required to trade venture capital gathered in the period, 1970-1990, and with what locational consequences? I suggest that a Vancouver location was a significant advantage for VSE market players during this period.

### **(i) Historical Market Data**

The first type of information required – market data on past prices and volumes – was perhaps the least difficult to acquire. Although information dissemination from the VSE was far from instantaneous, data on market activity was usually available Canada-wide the following day. National and regional newspapers published market data, and traders could also examine data collated into newsletters by the Exchange. Location was thus relatively unimportant in this regard.

### **(ii) Current Market Information**

The second information requirement – for up-to-the-minute market information – was more spatially restricting. Prior to the development of sophisticated telecommunications, diffusion of standardised information on prices and volumes was slow. There were delays of up to an hour and fifty minutes in processing tickets on the VSE, and it was only when the tickets were recorded that the tickertape sent prices and volumes to brokerage offices across Canada. Those brokers with offices in Vancouver used runners to access the information more quickly. Inevitably, it was those located on the stock exchange floor who had the best possible access, and who used the information to their advantage in the lag-time before others found out.<sup>91</sup>

Moreover, less standardised forms of information, such as observations or impressions of market activity, were *only* assessable from a place on the trading floor. Orders, for

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<sup>91</sup> This gives a trader a significant advantage over members of the public. As a result, traders are often prevented from trading for their own account (proprietary trading). As Laura Unger, SEC Commissioner notes, “On a traditional exchange, the floor members have time and place advantages over those off the

example, were kept in privately-held books until filled. Discovering or inferring what orders competitors had in their books gave a trader a sense of imminent market shifts. The following excerpt from an interview with a former governor of the VSE is useful here:

Without the instantaneous flow of information, you just had no sense of things. I mean, if I told you that stock A, there were 10 sales yesterday...but if you were there with us, for those ten sales, through a heated bidding in the last 3 minutes, that would tell you something different. And if you're not there, you don't get that, you don't know who's doing the bidding. ... You play that floor for three or four years...and you knew the actors - you knew when you saw Jones over there that he was representing three or four investors. You started to infer things about plays in the market. You started to sense when they have their tail out on a short position. You just had to be there to get the pulse. I didn't believe it when they told me that, but if you go down and you watch them on the floor, and you just sit there and watch it clinically - the first five minutes it looks like a zoo, a madhouse, but you know there's an order to it. I don't think you could have been an active, tier one player on the VSE unless you had an office in the city, you had a position on the floor (D).

The need for instant awareness of current market activity was particularly marked in venture markets. On the VSE, share prices experienced rapid and dramatic price-fluctuations, and traders had to react immediately. The intensity of the fluctuations is attributable to the low liquidity of venture exchanges. Venture stocks listed on the Exchange had a much smaller float (number of shares outstanding) than comparable senior issues listed on the Toronto Stock Exchange. Although the nickname "penny stocks" was sometimes inaccurate, most VSE stocks traded at very low prices relative to

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floor, which is why we have placed limitations on their proprietary trading activities" ([www.sec.gov/news/speeches/spch288.htm](http://www.sec.gov/news/speeches/spch288.htm)).

senior markets, and individuals could own a large percentage of a listed company. The combination of these factors meant that an individual order could move the market quite significantly. This would rarely happen on a senior exchange, as an interviewee explained:

When you're trading shares of Royal Bank, even the largest shareholder in the country is not going to move that stock a heck of a lot. With venture capital, you could have one or two traders, and they could move the stock – they could move it anytime of the day or night (D).

On the VSE, a single order could result in a large increase or decrease in the stock price. Traders needed to be in the midst of the information flow to ensure they could act quickly if the market moved against them.<sup>92</sup>

This locational need was exacerbated by the poor depth of market on the VSE. Depth of market refers to the total number of buyers and sellers in a market, and their willingness to commit capital to a stock. Market-makers provide this function in dealer markets by offering immediate and continuous trading in a company's stocks. Knowing that there are willing buyers and sellers means that participants are prepared to trade more frequently, and are willing to hold securities, because they know they can move them if need be. Lack of widely-available information about smaller companies meant that most junior listed companies did not attract the same customer interest as a senior company, reducing the number of buyers and sellers and thus the depth of the market. In an auction market

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<sup>92</sup> Clearly if trader X needs to sell shares of ABC Mining, and the price falls rapidly when trader Y sells a block of ABC shares, trader X loses money. If trader X could have anticipated the move by trader Y – something made easier from a location on the midst of the information flow – they could have executed their order before trader Y, and received a better price for the ABC shares.

such as the VSE, traders had to find their own counterparties. Once again, a location near the heart of the market improved information quality and timeliness, and reduced the chance of getting “stuck” with an unwanted position.

### **(iii) Information Concerning Future Market Developments**

The third type of information – information that assists a trader to anticipate future market movements – also encouraged clustering of traders in the Vancouver area in the period 1970-1990. Although traders generally work with short-term (minute-to-minute, hour-to-hour) time horizons, information about the listed companies, as well as news of potential new floats, help them to form a longer-term overview of the market.

For VSE traders, gathering this information was relatively straightforward from a Vancouver location, but became more difficult if one moved away from the city. Some of the informational characteristics of venture capital outlined in chapter three suggest why this was the case. Little standardised information about venture companies existed. Traders wishing to research a listed company, or find out more about a new issue coming to the market, were unlikely to find press accounts, analysts’ briefings, or company reports. Rather, the best sources were people. This included those directly involved in the venture (e.g., the promoter, the management, the lawyer and accountant, and the underwriting firm) and those with a more general knowledge of the Vancouver marketplace (e.g., “internal” colleagues in other departments, and contacts at other investment dealers). The city of Vancouver was home to a host of venture players, and

interaction with such individuals yielded market gossip and rumours. This information was disseminated in the workplace, but also during after-hours social events. The bars, clubs and restaurants within walking distance of the stock exchange enjoyed the frequent patronage of traders and other financial professionals. To be part of this “scene” demanded a city presence. A former trader noted:

If you were outside of that community, you were definitely outside of the rumour mill, the informal exchange of information.. And that didn't all happen on the trade floor – that probably happened on the golf course and in the bars as much as anywhere else (L).

Another interviewee commented, “the essence of our business is information, so to be in the loop is very important” (G). Traders located outside Vancouver found themselves out of this information loop, and at a significant disadvantage.

The illegal, or “scam”, activity prevalent in the Vancouver marketplace further exacerbated the need for interaction with key players. Traders needed to know which stocks were about to plummet on the back of a bad press release, and which were about to rocket on the sizzle created by a promoter. This information circulated in tight, private circles. Publicly available, “transparent” information was more often than not falsified to attract investors. With pronounced insider-outsider distinctions, traders had to be in the loop to avoid being “fleeced” (or to participate in the “fleecing”) in VSE scams. To be party to such information, traders had to go to the right places, and mix with the right

people. An “inside” location was a prerequisite for the inside information on which the exchange thrived.<sup>93</sup> One interviewee commented:

The VSE.....it was a market run by insiders for themselves. So unless you were here, it was pretty hard (A).

### **The Pull of Howe Street<sup>94</sup>, 1970-1990**

If we look at the locational distribution of trading operations in the period 1970-1990, it should come as little surprise that the vast majority of firms had a Vancouver presence. In locating in the city, traders improved their access to past, present, and future market information. Figure 1 shows where member firms located their trading departments. As it illustrates, only a small minority of investment dealers trading on the VSE did not have an office in BC, or, specifically, Vancouver.

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<sup>93</sup> Few of my interviewees were willing to be explicit about the shady activity associated with the VSE. This appeared to me less a product of fear or concern over being “caught out”, and more driven from affection for, and loyalty to, the exchange.

<sup>94</sup> For much of its history, the VSE was located on Howe Street. The term has a broader meaning here. In Vancouver, “Howe Street” is synonymous with the downtown financial core, as is the case for “Wall Street” in New York, and “Bay Street” in Toronto.

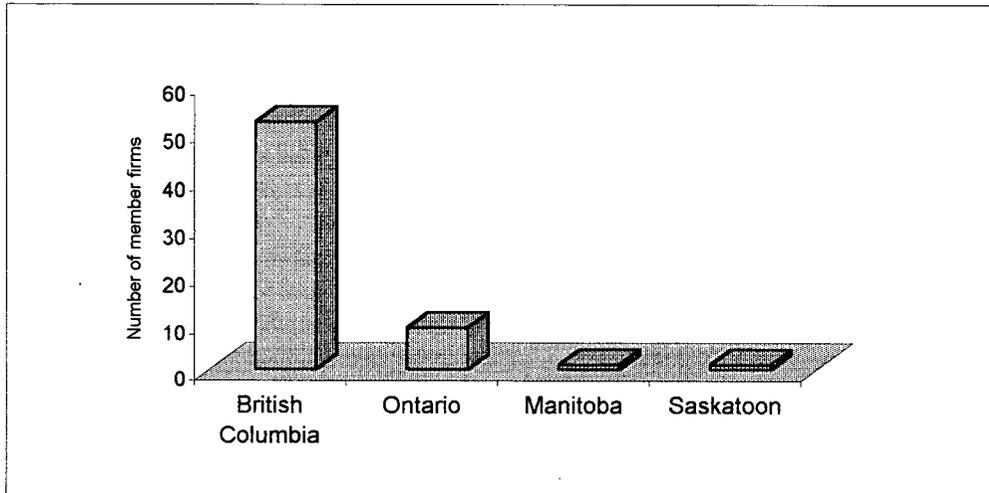


Figure 1: Location of Vancouver Stock Exchange traders, 1970.

Trading from a remote location was not impossible, however. Firms who did only a very small amount of business on the VSE performed “jitney” trades.<sup>95</sup> As it was uneconomical for them to purchase a seat, these firms went through a third party – a trader whose firm was a VSE member. A phone call would be made to the third party, who would then execute the order on the floor, as well as arranging the settlement. The price premium paid for this reflected the costs of the third party. The price premium, however, was not the only disadvantage suggested by interviewees regarding jitney trades. The additional mediation in the process sometimes resulted in a slight time-delay, which could cause the missing of a trade at a price. Going through a third party also meant one had no control of the book, so it was impossible to know whether one’s order

<sup>95</sup> Wirehouses, headed in Canada by Bonguard, Merrill Lynch, and Midland Doherty, performed the jitney function. They had offices in all markets, and executed for smaller, regional firms.

was positioned as a priority.<sup>96</sup> Nevertheless, “jitneys” made it possible for investment dealers without a Vancouver office to transact business on the VSE.

This aside, it seems that for all top-tier Vancouver Stock Exchange traders, a place on the trading floor was essential. This enabled them to keep abreast of market data, as well as acting as a “passport” into social and business circles where information was circulated. The closure of the floor had the potential to alter fundamentally both informational and locational variables. The extent to which this actually occurred is explored in the next section.

### **Trading, Information, and Location**

#### **RIP The Trading Floor<sup>97</sup>: 1990 -**

By 1990, innovation in computer networking technologies facilitated the VSE’s move to a wholly-automated trading system, and the trading floor closed. In theory, traders could execute business from remote locations, dealing through VCT or OMS links. Despite all the change for the VSE, traders’ informational requirements appear fairly constant. To do their job well, traders need past, current, and future market information. If these needs were best served with a Vancouver location in the past, is this still true in the light of

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<sup>96</sup> The trader’s own clients, for example, may be placed ahead, possibly resulting in disadvantageous prices. As one interviewee put it, “Each of the firms needed to have their own traders on the floor to look after their business, to make sure that their clients weren’t getting screwed” (U).

<sup>97</sup> Hamilton (1986:48)

technological changes revolutionising financial markets? Once again, I return to the threefold information classification.

**(i) Historical Market Data**

Highly standardised in nature, information on past prices and volumes is widely available, as it was in the period 1970-1990. The explosion of database and internet technologies further augments its availability. Anyone with an internet connection can access the web, and search for past stock prices and other financial information. Access to this information thus has a negligible role in determining locational choices.

**(ii) Current Market Information**

Current market information was significantly affected by the shift to automated trading. In the period 1970-1990, standardised facts on prices and volumes were accessed most rapidly from the trading floor. A place on the floor also enabled traders to infer information from the trading activity around them. When the trading floor closed, this information moved onto automated systems. Current bid and offer prices, and volumes recently traded at each price, are displayed on computer screens as part of the Exchange's trading engine. Order books are entirely transparent and displayed on screen, and traders judge the liquidity and depth of the market by watching their monitor. Getting a "feel" for the market now involves interpreting the automated book, not observing the actions of traders on the trading floor.

Theoretically, the shift to an automated system could have significant ramifications for location. The computer terminals may be used anywhere, and information flows and trade

execution are instantaneous from any location with the appropriate technological connection. As a CDNX manager told me, "The response time is sub-second, no matter where you are, and that's the way we have to keep it" (U). It appears no real information advantage accrues to traders located in Vancouver. Traders can conduct their business as successfully from remote locations as they can from an office adjacent to the stock exchange headquarters. I asked one trader of senior equities if he felt informationally disadvantaged trading on the TSE from Vancouver. He replied, "No. Years ago, that was really true. But with the technology available to us now, there's no disadvantage whatsoever" (P). Peter Brown, chairman of Canaccord Capital Corp, recently commented in the business magazine, *Macleans*, "I could be trading stocks from my bathtub in Alaska".<sup>98</sup>

Despite his brash pronouncement, however, Peter Brown's company, Canaccord, retains trading desks in Vancouver. Notwithstanding the seemingly "footloose" nature of current market information, there may still be incentives for traders of venture equities to locate in the city. One reason put forward is the need for interpretation of information. A computer screen may convey the news of a trade, but it cannot explain why trader "X" wants to sell, or why trader "Y" wants to buy. While it is now possible to access current market information anywhere, several traders suggested that successful interpretation depends upon interaction with other market professionals. As Nigel Thrift (1994) argues, the process of interpretation is most easily performed in a social space. Interpretation of market activity is "scripted" and narrated in financial centres, and traders gravitate to

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<sup>98</sup> *Macleans* v.112 18: 44

these centres. Vancouver, then, remains an interpretative hub for venture capital. As one interviewee commented:

It is essential to have an office in this city, because you have to be in the information flow. If you're here, you can always go out and have lunch with someone, or have a drink with them, and kind of get a gist of what's going on (G).

Old habits die hard; socialising and drinking after work are an important way for traders to stay in the interpretative loop. Despite technological change, the "twin needs for sociability and proximity" (Leyshon and Thrift, 1997) persist for Vancouver traders. In fact, some theorists suggest that the significance of social networks has not merely persisted, but acquired *heightened* emphasis (c.f. Pryke and Lee, 1995; Code 1991; Graham and Marvin, 1996; Thrift, 1994). Precisely because technology renders most information ubiquitous, traders turn to alternative sources in the hope of finding something different. As Wango (1987) succinctly puts it,

The more information networks we build, the less people rely upon them and the more important direct face-to-face communications becomes. Everyone seems to believe they can only get the really important information – the right perspective, or the private, missing piece of data that someone is carrying around in his head or briefcase – by staying in close, face-to-face contact with the sources.

In an interesting departure from the general sentiment, however, the vice-president of a national investment dealer noted, "Sometimes being around all these people isn't an advantage. Impartiality and objectivity are significant elements in making good

decisions” (H). Traders, it seems, deploy individualised and personal strategies to manage and interpret information.

### **(iii) Information Concerning Future Market Developments**

What of the third need – information about listed companies and new issues that may help traders predict future market developments? In the period 1970-1990, this information was highly unstandardised, and disseminated through trusted business and social networks.

More recently, some information about VSE/ CDNX listed companies became widely available. As suggested in chapter three, the availability of standardised information pertaining to venture companies has increased. The CDNX web-site provides up to fifty pages of information on each listed company, and archives relevant press-releases. Prospectuses for most CDNX listings are available through the SEDAR web-site, and venture companies also post information on the internet. One interviewee outlined how access to corporate reports and other filings has improved:

What we used to have to do... if we wanted one of these filings is to phone a service, and they'd go to the repository or library, get the document, photocopy it, send it out by whatever. They'd fax it, or send it out by pony express or something. And it was very expensive. To get a simple quarterly report would be, if you wanted it in a hurry, maybe \$50, \$100. You can get them now pretty much instantaneously, and they're great.... I can get an annual report and download it in a couple of minutes, or fifty seconds actually (T).

The internet also provides a variety of new forums in which to exchange rumours and advice about junior stocks. Bulletin boards operate as 24-hour "chat rooms" where interested parties can read and add to information on different stocks. This boosts the visibility of listed companies. One interviewee picked up on a previous comment he made:

We were talking about bars and golf courses, but you can't ignore the internet now. That's probably got more to do with the rumour mill. It doesn't have to be as geographically centralised as it used to be (L).

Rumours about CDNX listed companies are no longer the preserve of Vancouver-based "insiders" - they may be accessed remotely by individuals across the world. That said, there are good reasons for CDNX traders to stay in the city. Once again, the issue of interpretation is critical. Rumours and gossip about companies must be filtered, and this may be difficult from afar. Bulletin boards, for example, are littered with inaccurate "information". The recent arrests of individuals accused of posting false information on bulletin boards in the United States testifies to the dangers of trusting information disseminated in this fashion. When asked if he could trade the CDNX as effectively from a cabin in Alaska as he could from Vancouver, an interviewee replied:

I don't think so. A lot of the stuff on the internet you have to separate the true from the wishful thinking. And a lot of it on there, you really have to discard to find out what's really going on..... You need people to bounce it off (E).

Interpreting information about venture companies is easiest in Vancouver. Drawing on their social and business networks, traders filter rumours and other information more

effectively. In the next section, I consider how these factors have influenced the location of traders since the introduction of automated trading in 1990.

### **The continued pull of Howe Street? 1990-**

The shift to an automated trading system had the potential to impact the location of trading operations, as many of a trader's informational needs are now fulfilled on screen. Technological changes have resulted in some locational reconfigurations. Some member firms have centralised trading operations. With the merger of the exchanges to form CDNX, TD Waterhouse, the largest discount broker in Canada, scaled down their Vancouver operations and centralised their trading on Canadian exchanges in Toronto to realise economies of scale. TD Waterhouse and other firms trade on the Canadian Venture Exchange using an OMS or a direct link (e.g., TradeCDNX).<sup>99</sup>

Automation has also brought into being a new type of trader – the day trader. Principally conducted by individuals capitalising on high-speed access both to information and trading systems, day trading is gaining in popularity.<sup>100</sup> The explosion of corporate,

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<sup>99</sup> The number of VCT/ TradeCDNX terminals in Vancouver has dropped from 90% to 50% (of approximately 400 terminals) since the merger of the ASE and VSE. OMS access to the exchange adds approximately 1500 terminal accesses to the system

<sup>100</sup> In the US, the Electronic Traders Association, an industry group, estimates that 4000-5000 people are full-time day traders, making as many as 200 000 trades a day (Aarsteinsen, 2000: Vancouver Sun, Feb 4<sup>th</sup>).

trading, and financial information on the net has, in the words of one interviewee, “levelled the playing field” between the public and the professionals.<sup>101</sup>

In my time it's gone from the trade floor, where news was disseminated by two copies of a news release being put in a mail slot that the traders picked up first, that then slowly got out to the offices, and then slowly got out to the public. Well, there's a significant advantage in that sort of information. Today, what advantage does a trader have? If disclosure is timely and accurate, the public has that exact same information. That's day trading.... It's really taken the information to the people (L).

Day trading is sometimes used to refer to people trading at home through their broker's internet trading service. These individuals see price quotations on-line, and send the order to the broker via the internet. Day-trading “proper”, however, requires certification. As mandated by the British Columbia Securities Commission, would-be day traders must pass a two-week theory course and four weeks of practical training. Once qualified, day traders may access real-time trading engines (as used by traders in investment dealers), and can execute trades instantaneously.<sup>102</sup>

Day trading can be conducted from any location with the appropriate communications links. That said, day trading is a somewhat distinct phenomenon, and cannot be compared to the trading operations of an investment dealer. Most significantly, the two are regulated quite differently.<sup>103</sup> Individuals trading only their own funds fall under a

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<sup>101</sup> Indeed, given the democratisation of information, and, to a lesser degree, execution, many industry commentators have questioned the need for traders in future years.

<sup>102</sup> Those trading through the internet site of a brokerage firm, by contrast, cannot access this top-tier information, and trades are processed far more slowly.

<sup>103</sup> Trading in securities is regulated under a number of laws. In Canada, the various provincial Securities Acts are administered by provincial Securities Commissions. There is also a considerable degree of self-

different set of rules to registered investment dealers with responsibility for the money of others. Traders working for an organisation that falls under BC rules cannot work from home without being considered a sub-branch, that then has a prohibitively stringent set of rules of its own.

More generally, regulatory issues prevent various locational possibilities for investment dealers. Regulatory friction between jurisdictions presents a barrier both to international and inter-province trade.<sup>104</sup> A CDNX employee explained the difficulties in placing VCT terminals in the US and in Quebec:

If you get into the US, they can declare you as setting up as an exchange in the US, and you come under all sorts of SEC regulations. So, no – we didn't want that to be honest with you. We're even having troubles in our own country here with our VCT terminal. There's two Canada's – there's Quebec and then there's the rest of Canada... As we put terminals in on a case-by-case basis we have to get approval from the Quebec Securities Commission to put those terminals in, because we could be seen as doing business in the province of Quebec, and they would consider it their jurisdiction and regulate us. So you have to avoid this kind of thing. We're actually working province by province across the country to get recognition, or exemption from recognition, so we are not seen as having to deal with multi-jurisdictions for our rules and regulations. This is one of the problems you get into (U).

The regulatory environment means that traders who work for CDNX member firms are far from footloose. If the *potential* effect of technological change on the location of trading operations is huge, the *actual* effects have been more muted. From an

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regulation in the industry, that takes place through regulations governing membership in various professional associations (e.g., the Investment Dealers Association of Canada (IDA)).

<sup>104</sup>Regulatory issues, although slow-moving, do appear to be shifting in favour of more permissiveness vis-à-vis multi-jurisdiction trading. The BIS (Bank for International Settlements) and IOSCO (International

informational perspective alone, there are strong reasons to remain in Vancouver, and most of those who trade on the CDNX (with the possible exception of discount brokers and day-traders) conduct their operations from the city. Figure 2 shows the location of traders in 1999, and illustrates the continued popularity of British Columbia (or, more specifically, Vancouver). If the proportion located in Vancouver has diminished slightly since 1970, the city remains the location of choice for most traders of venture capital.

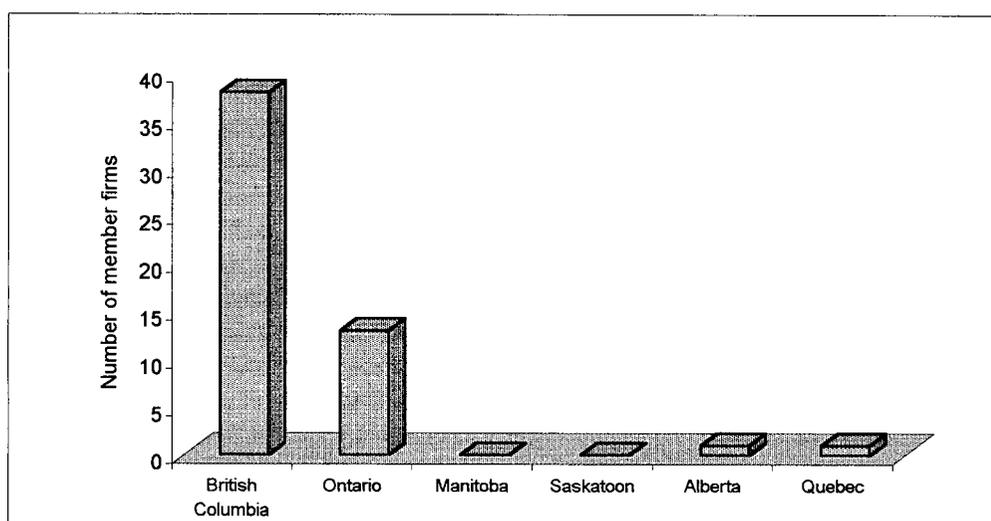


Figure 2: Location of Vancouver Stock Exchange Traders, 1999.

### In Summary

To conclude this chapter, I return to my research question. Does geography matter for a financial product such as venture capital? Interviews with traders suggests that geography historically mattered in a significant way, *particularly* for a product such as venture

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Organisation of Securities Commissions) are two international bodies working for agreement between

capital. If all traders experienced informational advantages from a location on the floor of the exchange, such advantages were particularly important in the fickle world of junior equities. Moreover, despite changes in technology that have revolutionised how trading operates, a Vancouver location retains its appeal. Most CDNX trading desks are based in the city, taking advantage of a position at the intersection of various informational flows.

My second question considers whether geography matters in different ways for the different services involved in venture capital markets? In order to address this question, I firstly need to study the other services involved in the production of junior equities. The next chapter considers corporate finance, or more specifically, the underwriting process.

## UNDERWRITING AND THE CORPORATE FINANCE FUNCTION

### **“The Howe Street Carnival”<sup>105</sup>: Underwriting of VSE companies, 1970-1990**

When firms need to raise capital they can sell new securities (e.g., new issues of stocks, bonds, or other securities) to the public. Many Vancouver-based investment dealers have corporate finance departments that enable start-up companies to sell securities by underwriting the issue.<sup>106</sup> In underwriting the issue, financiers agree to prepare all the documentation required to sell new shares on a stock exchange.

There are two methods of underwriting a securities issue. In a “firm commitment” underwriting arrangement, the investment dealer purchases the securities from the issuing company, and resells them to the public. The issuing firm sells the securities to the investment dealer for the public offering price, less a spread that serves as compensation. In such an arrangement, the investment dealer assumes full risk that the shares cannot be sold to the public at the stipulated offering price (Bodie et al, 1997). An alternative is the best-efforts agreement, where the investment dealer agrees to help the firm sell the issue to the public, but does not purchase the securities. The investment dealer simply acts as

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<sup>105</sup> Adrian Du Plessis (1988).

<sup>106</sup> Corporate Finance departments actually engage in a variety of activities, of which underwriting is only one. I focus entirely on the underwriting function in this chapter, reflecting the importance of this particular activity for Vancouver-based corporate finance teams.

an intermediary between the company and the public, and does not assume the risk of being unable to resell purchased securities. In both cases, besides being compensated by the spread between the purchase and public offering prices, an investment dealer may receive shares in the firm, or warrants to purchase shares at a low price.

The underwriting process that evolved in Vancouver in the early part of the century, and persisted through the 1970s and 1980s, was unique to that Exchange's venture market. More specifically, unlike senior markets, the underwriting of a new VSE company often involved a promoter. Companies seeking to raise money did not approach underwriters directly, but went through an intermediary whose role was to "hype" the stock throughout the underwriting process. Promoters received shares in the company as compensation for their work. Companies taken on by promoters were usually chosen for their "sizzle" value; that is, the ability to pique client interest.<sup>107</sup> As detailed in chapter three, some companies were "created" by promoters for the purpose. In these cases, promoters acquired substantial shares of dormant VSE-listed companies that rarely traded, and had no operations.<sup>108</sup> Industry commentators were particularly critical of this strategy, noting that junior ventures with solid business potential, but little promotional value, were as a result largely ignored (Matkin, 1994). Although many genuine venture companies were underwritten in this period, a substantial proportion of underwriting activity was conducted with the sole intention of making money for the promoter and underwriter, often at the expense of the investing public.

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<sup>107</sup> As one seasoned VSE player put it, "People like to buy the sizzle not the steak" (N).

Once the promoter had a company to list, the second step was to find an investment dealer to underwrite the issue. In underwriting a deal, financiers were responsible for ensuring that the company was “fit” for listing on the Vancouver Stock Exchange. The VSE, in common with other exchanges, required the filing of a preliminary prospectus with full disclosure of all material facts relating to the securities offered. The onus was on the underwriter to ensure that the prospectus was factually accurate with no omissions - an obligation referred to as the underwriter’s ‘due diligence’. It was intended that the underwriter would accumulate information regarding all aspects of the firm from a variety of sources, including banks, trade associations, accountants, suppliers, and experts. However, given that investment dealers were also more interested in client appeal than company prospects, due diligence was rarely an exhaustive process.<sup>109</sup> In fact, the due diligence obligation was notable only for its absence in many VSE underwritings. The Matkin Report observed in 1994, “Corporate due diligence is a relatively recent phenomenon in the local marketplace. Even five, and certainly ten, years ago, local brokerage houses had little or no due diligence capacity.”

The promoter acted as co-ordinator throughout the underwriting process. An interviewee outlined their role:

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<sup>108</sup> Particularly popular were those with a “thin float”, or small number of shares outstanding, where the promoter could gain control of 80 - 90% of shares.

<sup>109</sup> Recall that investment dealers are compensated with shares and warrants to purchase shares, so they too have an interest in seeing the share price increase. One financier noted that trading is profitable, but it is deals that bring in the windfall profits: “Trading is a very lucrative business, but it’s day-in, day-out business. It’s the cash-flow portion. The home run part is doing deals, and then, if the deals do well, your broker warrants earn you a lot of money” (G).

Your classic stock-promoter type would be the one really pushing the deal. They would find the asset. They would find the technical expertise for the board, if that was required. They would find the broker, and the lawyer. They would be the ones driving the whole process. And for the most part, they were incompetent, or greedy, or both, so it wasn't a very good formula for success (I).

The poor reputation of promoters was widely acknowledged. "The most distinctive image of the Vancouver marketplace is that of a community of particularly effective, but not necessarily trustworthy, promoters" (Matkin, 1994:19). This was particularly evident in the last stage of the process - piquing investor interest in the company. Well-timed press releases and rumours were used to attract the attention of the public. These releases were often inaccurate, and frequently overstated the prospects of the company in question. Since the stock was largely owned by the promoter and the underwriter, generating investor interest forced up the price, and enabled the "insiders" to liquidate their position at a substantial profit.

### **A cleaned-up VSE and the birth of CDNX – underwriting in the 1990s<sup>110</sup>**

In the late 1980s and early 1990s, underwriting on the VSE started to change. VSE traders came to terms with technological change in this period, but the underwriting process was subject to quite different pressures. The development of internet and

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<sup>110</sup> It would be somewhat unwise to overstate the change over time with respect to underwriting in Vancouver. Not all underwritings in the period 1970-1990 were "scams", nor has the Exchange ridded itself of illegal activity since 1990. Nevertheless, interview material and secondary sources all suggest that it is not inaccurate to contrast an "old" and "new" exchange.

database technologies had a limited impact on corporate finance, but regulatory change resulted in far-reaching upheaval.

Changes in the regulatory environment, however, have not moved in the direction predicted by O'Brien (1992). O'Brien suggests that there is a deregulatory trend at the national level, and a concurrent attempt to harmonise rules across international boundaries. In interviews in Vancouver, international and national regulatory regimes were rarely mentioned. Provincial regulation, and rules imposed by self-regulatory organisations such as the VSE and the Investment Dealers Association (IDA), are seen as much more pertinent. Several interviewees remarked that regulation of the Vancouver venture markets *tightened* from the late-1980s as the VSE tried to improve its poor reputation. The publication of the Matkin Report in 1994, in which promoters, underwriters, and regulators were criticised for cultivating a "scam culture" on the Exchange, initiated further regulatory tightening.

In the late 1980s, and throughout the 1990s, self-regulatory and provincial bodies augmented regulatory demands. The VSE set up a committee to review listings in 1989, and in subsequent years, requirements were revised. Specifically, the loophole that permitted promoters to reactivate dormant companies was closed. Stricter procedures were also put in place regarding reactivation, and the rules on the de-listing of inactive companies clarified. Listing requirements are now more comprehensive, and include stringent standards for the prospectus. Due diligence is now expected to involve extensive research into the issuing company.

The VSE also introduced public governors onto the Board in the early 1980s. One of the first such governors explained the rationale:

It was kind of an experiment, I guess, for the Exchange. It was the first time they had outsiders coming in and looking.... The reason why they wanted public governors was they wanted someone from outside the industry to make sure what the governors were doing was in the public interest. There was a belief that the Exchange was really controlled by insiders, and it was, up until that point. And I guess the view we always took, the two of us (public governors), was that we were there to represent the public, rather than the brokers or the underwriters, and to make sure there was a level playing field (D).

The presence of public governors contributed to the enforcement of rules and regulations, a process previously performed in a highly selective manner. A Board comprised entirely of member firms tended to overlook technicalities if they were perceived to interfere with profitable business practice. The same governor explained:

What you had was a group of broker-members, and their livelihood was made by floating issues and by trading... So there's this constant pressure... And at the other end we were saying, 'Have you got everything in order?' Have you filed all the forms? Have you crossed all the Ts and dotted all the Is?' I think the consensus was, 'Well, we'll get around to that later', and we would say, 'No, let's get around and do it sooner not later (D).

The VSE was not the only organisation to make regulatory changes. Substantial amendments were made to the BC Securities Act in February 1989. These limited the ability of investment dealers and promoters to "blow off" hyped shares to the public immediately after an IPO. Furthermore, the British Columbia Securities Commission (BCSC) stepped-up its efforts to prosecute promoters and investment dealers involved in

illegal activity, and several high-profile cases resulted in suspensions and prison terms. In 1991, the BCSC removed the Sirianni brothers' trading privileges and director/ officer eligibility for fifteen years for the creation of a false market, and failure to file insider reports. Individuals involved in the issue of Rainforest Mushrooms Ltd faced similar penalties in 1992 for misappropriation of funds, misleading representations in disclosure documents, and market manipulation.

Vancouver's venture market is now regulated to the point where some industry players suggest it is strangled by red tape. The tightening of regulation affected all aspects of the production of venture capital, but the effect on the corporate finance function is particularly noticeable. With more stringent rules in place, the amount of capital required to list a public company is high, and the new rules mean it is difficult for promoters and investment dealers to make "fast money" from shell companies.<sup>111</sup> Many promoters are going in search of more lucrative opportunities elsewhere.<sup>112</sup>

Even at the most preliminary stage, the underwriting process in Vancouver has changed. A "typical" underwriting on the CDNX is likely to be negotiated between a start-up company and an investment dealer, without the mediation of a promoter. Promoters or salespeople used to bring companies to the attention of financiers. Now, junior companies are sourced by the corporate finance department, or approach brokerage firms with a proposal. Corporate finance in Vancouver's venture markets is moving towards a senior market model, where financiers go out and approach companies to discuss underwritings.

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<sup>111</sup> One interviewee (G) suggested that a typical venture underwriting now costs between \$25,000 and \$100,000.

Increased competition for good quality underwriting business may have contributed to a more proactive approach on the part of investment dealers. As one put it:

We're knocking on doors trying to find better quality deals, rather than sitting back and waiting for the promoter to drop it in our lap (I).

Once the relationship has been initiated, meetings between the potential underwriters and the company management take place to find out more about the venture, and to ensure that the two parties can work together. At this stage, another brokerage house may also be approached to form a syndicate. While the ability to generate client interest remains critical, the criteria sought by some underwriters have shifted. Long-term prospects are attributed more importance, and investment dealers appear more inclined to favour factors such as strong management, a solid product, and a market niche. Of these, the first dominated the agenda - "management is the key thing" was a sentiment reiterated on several occasions.<sup>113</sup> What one interviewee described as the "crystal-ball-gazing" character of junior markets exacerbates the importance of strong management. The lack of more fundamental performance indicators (e.g., earnings ratios, or debt coverage) means any evaluation of the company pivots around the abilities of the people in charge.<sup>114</sup> As one financier put it, "To some extent, you're assessing dreams.... You're betting on the people really" (I).

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<sup>112</sup> Lesser regulated OTC markets in the US are a popular destination.

<sup>113</sup> As discussed in chapter three, the growing popularity of "blind" venture capital pools testifies to the importance of good management in venture companies.

The procedures following the initial meetings between financiers and management have also become more rigorous in the light of regulatory changes. Due diligence is a meaningful and scrutinised activity. It may involve site visits, something that is more common as the listings base of the VSE moves away from natural resource exploration, and towards technology and new industrial stock. There is also a trend towards companies being financed at a later, more mature stage, possibly after the injection of funds from “angel” investors, or venture capital funds.

There’s certainly more meat on the bones than there used to be. There’s something to actually have a look at, kick, poke and prod, see if it works (I).

For those ventures with less tangible products, the due diligence process sometimes involves engaging specialists in the field. The same interviewee explained:

It depends on the nature of the product... In biotech, for example, someone tells me something growing in a petri dish cures cancer. I’ve absolutely no way of assessing that. So we’ll go to the universities, or independent consultants, and ask them, and retain them for a specific purpose (I).

The more mechanical aspect of due diligence involves checking if the proprietary rights to the product are intact, and if the company is properly incorporated. At this stage, the underwriter usually issues a letter of intent with the company, that outlines how much money they aim to raise, and at what cost. The preparation of a prospectus may take several more months,<sup>115</sup> and involve extensive negotiation with the Exchange listings

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<sup>114</sup> Malkiel (1996) offers a succinct outline of fundamental performance indicators and their strengths and weaknesses.

<sup>115</sup> The whole process typically takes between 1 and 9 months.

department. Furthermore, a business plan needs auditing, a chartered business valuer must conduct a valuation, and a lawyer must sign the prospectus. Corporate finance departments assume this co-ordinating function in place of promoters.

Once the prospectus is approved, the corporate finance department typically hands the deal to the salespeople, who collect orders through their client base. The commission paid to the underwriters usually involves shares, and warrants to purchase shares in the future.<sup>116</sup> Changes to the BC Securities Act have made it difficult for investment dealers to sell these “escrow” shares in the immediate post-offering period and so it is in their best interests to ensure that the company is performing well:

We basically baby-sit them for a year, making sure all the regulatory filings are all done, and that they're on target. You're growing the baby... They're constantly coming to us for advice (G).

This role is similar to that performed by venture capitalist funds; that is, firms that invest money in start-up companies with the aim of taking them public as they mature. Venture capital firms nurture the company in the hope that they will receive a “windfall” after several years.

### **The informational requirements of a venture equities financier**

What information does a financier of venture capital need? First, and most important, a financier needs information about the start-up company and/or the promoter in order to

decide if it represents a good opportunity. Before making a commitment, a financier must decide whether the underwriting will be successful and profitable. The lack of standardised information about venture companies means that less-standardised forms assume great importance. In chapter three, I suggested that venture capital funds prioritised the quality of the management in making their investment decision. Most financiers involved in the underwriting of venture equity I interviewed reiterated this sentiment, confirming that the decision to invest is based primarily on *impressions* of the personnel involved. If the company management or the promoter are perceived to be competent, the underwriting proceeds.

This somewhat intangible information requirement is complemented by more tangible needs. Although importance is attached to the personalities behind the companies, facts and data about the business are also necessary. As start-up ventures, there is far less documentation (e.g., financial statements, or company reports), but any relevant data is gathered by financiers.

Finally, financiers also require information in the form of reports and referrals from accountants, lawyers, and technical experts in order to file the prospectus. Although the precise requirements vary by type of company, it is the financier's role to co-ordinate the production of this information, and ultimately to package it in a final document. If the prospectus is rejected by the Exchange, the process must be repeated.

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<sup>116</sup> On average, most underwriters negotiate a 10-12% commission. Warrants are also negotiated. The maximum allowed is 25% underwriters warrants.

## **Underwriting, Information and Location: 1970-1990**

How were these requirements met in the period 1970-1990, and with what implications for location? In this section I argue that a Vancouver location was a prerequisite for financiers in order to obtain the necessary information to perform their function.

To fulfil the first informational need – impressions of the company management and promoter – a Vancouver location was very helpful. In the period in question, the promoter was the key figure, although company directors played a secondary role. A good promoter was capable of transforming any company into a profitable underwriting (if not a profitable business), and financiers needed to know which promoters to solicit, and which to avoid. Financiers formed long-term business arrangements with promoters based on mutual trust.<sup>117</sup>

To gather information on the various promoters, and subsequently to build relationships with them, a Vancouver location was very important. Most VSE promoters spent a significant amount of time in the city, and certain bars and hotels in the downtown area buzzed with their patronage. Similarly, although many of the natural resource companies were headquartered in northern BC or farther afield, the company directors were usually

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<sup>117</sup> As Gambetta's study, Trust: Making and Breaking Cooperative Relations (1988) suggests, trust is contingent on some form of co-operation, even in competitive circumstances. Gambetta notes that when we say we trust someone, "we implicitly mean that the probability that he will perform an action that is beneficial or at least not detrimental to us is high enough for us to consider engaging in some form of co-operation with him." In the Vancouver context, promoters may not have been necessarily "trustworthy" in a general sense, but self-interest usually ensured that relations with financiers were cordial.

found in close proximity to the Exchange. If based in the city, financiers met promoters and directors on a formal and informal basis, forming impressions and making contacts.

One interviewee noted:

Face-to-face meetings and what you have always been important and will always be important. I think they're more important with some types of investments than others. I don't know enough about VSE type of deals to comment whether you have to get in the room with the management to realise who's ripping off who, but it probably helps (A).

The process also worked in reverse: in selecting a brokerage firm to conduct the underwriting, promoters placed considerable importance on the individual financiers. A presence in Vancouver was essential if financiers wanted to be seen as serious VSE players, worthy of business from promoters and companies. Social activity and community involvement were tightly wound into this relation. As one interviewee put it, "In order to do deals and financings, you've got to be at the same party" (W). Another pointed to the similarities in this period between the VSE and the Alberta Stock Exchange, centre of oil and gas financings:

At the VSE and the ASE, the relationships with people who were active in the market were very important.... In Calgary, you came to deal in the Petroleum Club, with the guys you knew. If it was some outsider, people were much more leery... In the eighties, those close relationships – literally the deals being cut in the bars – face-to-face meetings was how it happened (I).

A city location also simplified the task of collecting relevant data on the company. Start-up companies rarely had formal financial statements and corporate reports, so such

information was pieced together by financiers, in conjunction with the promoter and directors. As noted, this aspect of the due diligence obligation was largely ignored by many financiers in the period 1970-1990, and therefore was not a major locational consideration.

By contrast, the financier's role in co-ordinating information for the prospectus was attributed more importance. Even if the due diligence process was not always entirely thorough or accurate, financiers required lawyers, accountants, geologists, and other professionals to submit reports and "sign off" on the venture. Vancouver acted as a central co-ordination point for venture capital, and building up a network of contacts was far easier from a city location. For these reasons, Ross, in his anecdotal account of Canada's stock exchanges, compares the VSE to the Brill Building, the pre-1960s centre of the American popular music industry:

The place was a legendary honeycomb of songpluggers, agents, touts, publicists .... all living out of one another's pockets, all doing their best to steal one another's ideas (Ross, 1984: 80).

Once the prospectus was complete, it was submitted to the VSE listings and corporate finance division, which was headquartered in the city. Prospectuses and other filings, often measured in feet of paper, were physically delivered to the Exchange, and collected and revised if necessary. Processing the information was thus far easier from a nearby location.

Given these informational requirements, it is not surprising that firms conducted the vast majority of VSE underwritings from a Vancouver location. Calgary fulfilled a similar role, acting as the centre or hub for oil and gas underwritings on the Alberta Stock Exchange. The regulatory restructuring that impacted the VSE from the late 1980s onwards may have changed this. While there are more than a few remnants of the promoter-driven VSE still in place, the shift to a more senior model continues apace. The next section examines the implications of these changes for the locational requirements of financiers.

#### **Underwriting, Information, and Location: 1990-**

The informational needs of financiers have experienced some shifts in emphasis in recent years, but are largely intact, and I retain the threefold classification. The first requirement – information about promoters, the company, and its directors – is still considered the most important. The shift away from a promoter-oriented market means that the emphasis is firmly on the relationship with company management. As before, this is a two-way process, as both financiers and company directors try to ascertain whether the business relationship is advantageous.

The process begins with financiers seeking news of up-and-coming management teams and companies. This can take the form of rumour or gossip, as well as impressions or observations formed during social or business meetings. As the underwriting business

becomes more competitive, such information becomes more sought after. Vancouver maintains its status as a hub for such “intelligence”. Given its history as a centre for junior financings, many start-up companies choose to locate in the region. Non-local start-ups bring their “roadshows” to Vancouver, or send company directors to the city to source financing.

A location in the city is believed to offer distinct informational advantages. Ter Hart and Piersma (1990: 85) comment, “Knowledge of the local market is a prerequisite for identifying market opportunities”, and Vancouver financiers suggest that such knowledge is acquired through a local presence. Financiers meet management and form relationships at an early stage. In the process, they gather information and assess potential future business opportunities. As one financier put it:

You’ve got to find them now. You’ve got to go and knock on the door and say ‘Hi, how are you, and do you want to do this?’ So then when they want to go public or something, they’ll talk to you... From that point of view, huggy-huggy, touchy-feely stuff works (E).<sup>118</sup>

At the next stage - negotiation of the deal – face-to-face interaction shows little sign of diminishing in importance. Financiers repeatedly expressed the importance of meeting the directors when assessing a venture company. Checks on management can now be

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<sup>118</sup> Leyshon et al (1989) also suggest that a personal touch is still important in corporate finance. In examining the persistence of British provincial financial centres, Leyshon et al note that regional firms have filled the growing lacunae in local markets. As City firms scramble for international business, smaller domestic clients have started to look closer to home for financial services. Hamilton Fazey (1987b: 3) comments, “A Northern industrialist visiting ‘his’ (sic) London merchant bank will nowadays find it difficult to see much of a senior partner... But he can reach Manchester from almost anywhere in the Northwest in less than an hour – and be guaranteed the attention he wants and deserves.”

performed using computer databases such as LexusNexus.<sup>119</sup> Such technological advances, however, do not erode the importance of the business meeting:

We do database searches ... to check people out and follow up on references and prior employment. And that gives you a certain sense of a person. But I don't think it can replace a face-to-face meeting where you get a sense of how passionate they are about what they're doing. Often one question leads to another in these meetings. It's not really a science (I).

Underwriting agreements, moreover, have to be negotiated. Ter Hart and Piersma (1990:85) tie trust and relationship building to proximity in their study of underwriting activity in the Netherlands: "For the lead manager (of a syndicate), it is absolutely necessary to have physical proximity to the client: the company has to have faith in the capabilities of the bank." Several Vancouver-based interviewees commented that corporate finance was about deal-making, and as such, required relationships forged through personal meetings.

You've got to be talking face-to-face. You're negotiating a deal. It's buying and selling money. You've got to be there in person – there's no substitute for that (G).

Theoretically, with more convenient air travel, the need for face-to-face interaction should not tie financiers to a local location. Senior corporate finance activity is overwhelmingly concentrated in "global cities." London, New York, and Tokyo service major corporations all around the world, and company directors and financiers make reciprocal visits. Many financiers I interviewed do travel extensively to make deals in all parts of the world. That said, the deals in questions are often slightly larger than average.

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<sup>119</sup> Lexus Nexus lists all times when a given name has appeared in print, and is used by financiers to

Most venture negotiations, however, are conducted from a Vancouver office, reducing costs and improving proximity to local venture companies and other investment dealers.<sup>120</sup>

The second informational requirement – the acquisition of information about the company – has vastly increased in significance in recent years. Profit may still be the bottom line in underwriting, but profit is increasingly derived from the success of the listed company, rather than promoter's "scams". Corporate "fundamentals" (e.g., sales, earnings ratios) now carry at least as much weight as promotional value. As a result, financiers go to greater lengths to acquire information on the company.

Site visits, for example, are now relatively commonplace. During the due diligence phase, such visits are used to inspect premises and collect information. When the underwriting is complete, site visits are part of the "babysitting" function. The clustering of start-up companies in the Seattle-Vancouver area means a West Coast location is convenient. As one interviewee put it:

You could go by "absentee ownership", and fly in and out of a deal. It's just that it is hard to do that all the time (E).

The third factor – the co-ordination and collation of information into a prospectus – has been made easier by technological developments. Transactions increasingly avoid the

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determine if members of the management have been involved in illegal activity.

<sup>120</sup> This is particularly important if the deal is syndicated.

friction of distance through automation. Financiers exchange documents with lawyers, accountants, and other financial professionals over e-mail, and prospectuses are filed online. The progress made in this regard became evident in the recent merger process. Calgary was awarded the CDNX listings/ corporate finance division, and Vancouver-based brokerages now liaise with a non-city office and submit documents electronically. Some of the logistical aspects of the corporate finance function are thus simplified and freed of their locational restrictions by developments in information technologies. A Vancouver location may no longer be a necessity. Even here, however, some interviewees suggest that the co-ordination process is easier from the venture capital hub. In their interviews with bankers in Amsterdam, Ter Hart and Piersma (1990: 84-5) observed that automation of transactions with other banks and services had not diminished the desire for physical proximity. This may be particularly true for corporate finance activity. As Reed (1981:56) notes, "Bankers point out that the size and complexity of large financial agreements require direct personal interaction among the parties (borrowers, lenders, accountants, attorneys, project engineers, special consultants and so on)."

Given these factors, where are corporate finance departments located? It seems that this changed very little between 1970 and 2000. All CDNX members that perform underwritings on a regular basis have financiers in the city of Vancouver. A small number of oil and gas specialist boutique firms underwrite from Calgary. With the advent of a national venture exchange (CDNX), some member firms are considering opening corporate finance offices in other provinces. Such offices would evaluate and underwrite

provincial ventures, ready for listing on the CDNX. As yet, such developments are very limited.

### **In Summary**

To conclude, I return to my research question again. How does geography matter for a financial product such as venture capital? Interviews with financiers suggest that underwriting junior companies has distinct geographies. In the period 1970-1990, the promoter-driven market meant that financiers located outside Vancouver were at a significant informational disadvantage. The dominance of the promoter eroded in the late 1980s and 1990s as the regulatory framework tightened. In the “new” marketplace, financier’s informational demands continue to explain the persistence of clustering in the Vancouver area. From a Vancouver location, financiers can evaluate potential business opportunities, negotiate and co-ordinate deals, and oversee the company after the issue. Technological innovations have done relatively little to diminish the convenience of proximity in performing these tasks. As was the case 30 years ago, most major Canadian venture underwriters have a Vancouver corporate finance office. In the next chapter, I examine how the sales function has changed, and suggest how this might bear on the locational priorities of brokers.

## THE SALES FUNCTION

### Selling VSE Stocks<sup>121</sup>: 1970-1990

At the most general level, the role of a broker, or salesperson, is to mediate between clients and traders. Brokers take orders to buy or sell stock from clients, and convey them to traders. The broker keeps track of the trader's activities, and informs the client about the status of the order. In return for this service, brokers are paid a commission.

VSE salespeople in the period 1970-1990 offered "full-service" brokerage. In addition to the basic roles outlined above, brokers provided supplementary services. Full-service brokers hold securities for safe-keeping, extend margin loans,<sup>122</sup> facilitate short sales,<sup>123</sup> and provide advice and information regarding investments. To this end, they are usually supported by a research staff that issues analyses of companies and forecasts of industry conditions, and makes buy or sell recommendations. Some clients even set up

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<sup>121</sup> It is important to note that few brokers in Vancouver transacted solely on the VSE, although this was a large proportion of their business. Some firms covered blue-chip investing, and conducted business for clients on the Toronto and Montreal exchanges, as well as in the US.

<sup>122</sup> Margin trading is a way for investors to purchase securities, but only put up a portion of the cost. The broker contributes the remainder of the purchase price at an interest charge to the investor. This enables investors to leverage their resources for potential gain. However, if the stock price falls, losses are magnified.

<sup>123</sup> Occasionally, investors expect a share price to decline. To realise a profit from this, they engage in a short sale. The investor's broker borrows securities from another account on the investor's behalf in order to make delivery of the sold securities. The investor then buys the securities at a later date when, it is hoped, the price has dropped.

discretionary accounts that permit their broker to make buy and sell decisions for them. Central to full-service brokerage is a degree of trust between broker and client.

In the period 1970-1990, the relationship between a broker and client was usually initiated by a visit to the broker's office. The VSE catered almost exclusively for a retail market, meaning that clients were individuals, rather than institutions acting on behalf of others.<sup>124</sup> During this meeting, the two parties discussed the client's needs and risk profile. The provincial "know-your-client-rule" forced brokers to keep records for each client, and to check every trade against their investment criteria. Subsequent to this initial meeting, face-to-face interaction varied greatly. Some interviewees met clients monthly, while others never saw the client again. Informal meetings were common. Several brokers referred to meeting for drinks, or "bumping into" clients on the golf course, in restaurants, or in bars.

Most client-broker contact was conducted over the telephone. Although margin accounts were relatively unusual in the Vancouver marketplace,<sup>125</sup> full-service brokers were expected to provide other services. Brokers occasionally phoned clients with ideas or research. Research was sent through the mail, although time-delays and cost issues meant

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<sup>124</sup> Generally, brokers distinguish between two types of customers: large money-managers and institutions (the institutional market) and individuals (the retail market). Institutional investors are not major players in junior markets. Most pension funds, for example, have rules preventing investment in companies below a certain size/ age/ market capitalisation. Federal and provincial rules also limit participation. In Canada, institutions may only hold a maximum of 10% of total shares outstanding. Given that venture companies have a small market capitalisation, making such insignificant investments is not worthwhile for institutions.

<sup>125</sup> Regulations stipulate that the ability to loan money as a brokerage firm is based on the price of the stock. Generally, anything that trades over \$5 is marginable, anything under is not. Given that the VSE was (in)famous for its penny stocks, most were not over \$5, and therefore not eligible for margin loans.

that this was not used extensively. Clients also phoned their broker for information, or to initiate a trade.

The second role of the broker was to interact with internal colleagues in research and trading. Orders were written on tickets, and sent to the VSE floor for traders to execute. Once the order was filled, the information came back to the broker via a runner, a phone call, or through the “tickertape”, and brokers informed their client. Brokers also interacted with research staff to glean information on companies.

The third role of the broker, and one specific to the VSE and junior markets, was sourcing corporate finance deals. Salespeople, with their web of contacts, identified and “brought in” underwritings. The buying public with an appetite for speculative junior stocks was small, and many clients were also directors of companies, or involved with companies looking to go public. Once the deal was identified, the salesperson handed it to the corporate finance department, before receiving it back at the issuing stage to sell shares to clients.

#### **Selling VSE/CDNX stocks: 1990-**

The technological innovations that O’Brien (1992) suggests are revolutionising financial markets are immediately apparent when studying the trading function. Developments in computer networking technology resulted in the closure of the trading floor, and the shift

to a wholly automated system by 1990. In more subtle ways, technological change also altered how venture (and other) equities are *sold*. The rise of the internet in the 1990s, for example, changed how brokers interact with clients, and may ultimately eradicate the very role of the broker.

Alongside technological change, broader shifts in market demand are discernible in Vancouver. In Canada, there is a growing middle-class stratum with money to invest. Some individuals desire comprehensive financial management services, and a managed-money business emerged to fill the niche. Others seek execution-only service, and discount brokers used the internet and other technologies to create a “no-frills” option for this section of the investing public. Contrary to O’Brien’s narrative of progressive deregulation, however, the regulatory environment continues to place limitations on sales activity in Vancouver. These ideas are discussed in more detail below.

At one level, the sales process retains many familiar elements. A broker still executes the orders of his/her clients. A face-to-face meeting is a commonplace way to initiate a relationship with a new client.<sup>126</sup> However, if orders and research ideas were once communicated principally over the telephone, technological developments now mean that e-mail is a popular medium. This dramatically increased the volume of information and research available to clients. One broker explained:

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<sup>126</sup> This is not to suggest that brokers meet all their clients. Many Vancouver-based brokers have clients all over the world. As gateway to the Pacific Rim, certain Vancouver brokers have a large proportion of Asian clients. Others mentioned clients in London, Abu Dhabi, Dubai, and the US. In some cases, former Vancouver residents moved overseas and maintained contact with their broker. In others, the client was referred to the broker. Here, an individual’s trust in a friend or family member’s recommendation circumvents the need for a face-to-face meeting.

Before, a broker had to put your name on top of research and send it out to you. And the reality is that we could not send it to every one of our clients. Now, realistically, we could. And it would cost us, aside from the development costs, zero (W).

The growth of the internet and remote-access trading have altered the relationship between brokers and their clients. Most investment dealers are in the process of creating systems that allow clients real-time access to their trading accounts, as well as internet access to in-house research and other information.

We were one of the first (to set up on-line access) – now, only a year later, we're just among the rest. Clients can access their account online in real-time, which is an unbelievable thing to do. Clients at their leisure, having a cup of coffee, can see if that transaction went through. It's a wonderful thing (W).

The same technologies also impact the interaction between brokers and other divisions of the firm. Brokers used to liaise with research staff on a face-to-face basis. Now brokers access research services via the web. The trading-sales relation has also been reconfigured. Although many salespeople still use traders, network technology now enables brokers to enter orders directly into order management systems (OMSs), bypassing traders. The OMS fulfils the "know-your-client" obligation, checking the trade entered against the client's profile before letting the order proceed. Having routed the order to the appropriate exchange, notification of its progress is sent back through the

OMS system to the broker, who notifies the client. Many Vancouver brokers now use OMS systems to execute orders on the CDNX.

However, if the role of a *full-service* broker evolved between 1970 and the present, a more comprehensive shift also occurred, as the very concept of “sales” was reworked. In the 1970s, a full-service broker was the only available option for investors wishing to trade VSE stocks. Today, investors possess a far greater array of choices.

The most far-reaching development is the birth of discount brokers, who now account for approximately 25% of stock trades in Canada. A low-cost, no-frills alternative to a full-service broker, discount brokers charge low commissions by restricting their services to the execution of orders, holding securities for safekeeping, and, in some cases, providing margin loans and short sales. They provide free price quotations, but further advice and research is charged.<sup>127</sup> Discount brokers do not encourage clients to form relationships with their order-takers. In fact, clients are likely to speak to a different person every time they transact. Discount brokers such as TD Waterhouse, Schwab Canada, and CIBC Investors Edge do business with a large number of CDNX clients, and have membership on the Exchange. Making use of the internet to access information quickly and cheaply, investors perform their own research, and contact a discount broker by telephone or the

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<sup>127</sup> One interviewee referred to this as the “Cost-Co” model. “You push your own cart around, and just put stuff in and go to the check-out. But you’ve got it really cheap, right. There’s not much advice at Cost-Co” (F).

internet<sup>128</sup> to place their order. Many of the full-service brokers I interviewed noted that some clients have moved over to discount providers.<sup>129</sup>

We had a certain number of clients who just traded. They didn't want our advice. They just paid us to execute trades. But because we charged more than TD Greenline, a lot of that business went to TD Greenline (R).

The orders have to be checked by a registered representative, but staff in the call-centre are clerical workers, resulting in large cost-savings for the discount firms.

At the other end of the spectrum, a "managed money" business emerged, offering a further permutation of the sales function. Investment in mutual funds and portfolio management involves handing over all decision-making to a fund manager. Full-service brokerage used to be the only option available to investors. Now many in the industry think that the role of the full-service broker is under pressure:

One thing that's happening that affects how brokers structure themselves is what's called the bifurcation of securities trading by retail investors. Retail investors are slowly dividing themselves into two camps. One is the, 'I don't want to worry about it, I want someone to manage my money, just make sure I don't lose anything, and make me money' camp, which is what we call the managed money business... The other side of it is the do-

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<sup>128</sup> According to the Securities and Exchange Commission (SEC) in the US, the 3.7 million on-line accounts open in 1997 had almost tripled to reach 9.7 million by 1999. On-line trading volumes increased from under 100 000 trades per day in 1996, to over half a million in 1999. The percentage of equity trades conducted on-line grew to 15.9% (largely comprised of discount business) in 1999. For the implications of this growth for clients and regulators, see the SEC Special Report, "On-line brokerage: Keeping Apace of Cyberspace" ([www.sec.gov/news/studies/cybexsum.htm](http://www.sec.gov/news/studies/cybexsum.htm)).

<sup>129</sup> Some of these clients subsequently moved back to their full-service broker. In some cases, the rapid growth experienced by discount brokers has over-stretched their resources. Discount broker TD Waterhouse opened 60,000 new accounts in Canada in the first quarter of 2000, bringing their Canadian total to 760,000 accounts. Some investors find it difficult to make trades because telephone and internet connections are busy. One discount broker suggested that customers wait an average of 30-60 minutes to have their calls answered, and "an undetermined" amount of time to have their orders executed.

it-yourself-ers. ... The old traditional broker is in-between. The traditional broker will buy and sell stocks for you, but he comes to you and says, would you like to buy BCE, and you say yes or no.... That role is being split in two by the people who say, 'I don't need him to tell me to buy BCE. I can buy BCE cheaper myself through a discount broker. In fact, his firm also has a discount brokerage arm, and so I'll use them'. Or, people who say, 'don't give me the headache of asking me whether I should buy BCE. Just take down my investment criteria, we'll agree on how you're going to invest the money. Just buy it. Just do it. Charge me a fee for the year, make me money and I don't want to hear about it. Send me a statement every now and then to show me how rich I am' (F).

Finally, the technology now exists to dispense with both brokers and traders. In Canada, proposals for clients to participate directly in the buying and selling of shares through online marketplaces are currently under discussion. The alternative trading systems (ATSS) under regulatory consideration permit anyone to trade in an internet forum, obviating the need to go through a broker, or a stock exchange. At present, clients wishing to trade CDNX stocks must go through a CDNX member. This form of direct trading has experienced limited success in trials with major institutions, however. A Vancouver representative of an international bank commented,

We have a very expensive live trading system in the US now that requires no trader or salesman. Clients can look at things and just click and buy, click and sell. We're bringing people around here next week to show them the system. They're somewhat reluctant to spend the time to look at this.... They're very reticent.... My view is that will change (O).

Such opportunities are some way off for the average retail investor, but may have far-reaching implications in years to come.

## **The informational requirements of a venture equities salesperson**

What are the informational requirements of a full-service broker? Three things seem especially important. First, to perform their job effectively, a broker needs access to standardised market data, including facts on trades, prices, and volumes. This information is critical if the broker is to inform clients about the general state of the market, as well as the status of their specific trades.

Second, a broker needs information about the listed companies. Clients come to full-service brokers for advice and recommendations, and high-quality sources help brokers to maintain the loyalty of their client base. Knowledge of current and upcoming listed companies also enables salespeople to identify underwriting opportunities. Brokers face the same difficulties as traders in finding accurate information about venture companies, and they too search for standardised (e.g., analysts' reports, corporate statements and accounts) as well as unstandardised (e.g., rumour or gossip from market insiders) sources.

Third, and arguably most important, brokers have to "know their clients". Something of a cliché in the financial world, this is a sensible business strategy, as well as a legal requirement in British Columbia. Creating a profile of the client's investment criteria is a standardised procedure. Getting to know a client, however, involves assimilating unstandardised information. Whether this involves socialising with clients, moving in the

same business circles, or simply spending time talking to them, gathering more “personal” information is widely practised.

## **Sales, Information, and Location**

### **1970-1990**

The first two informational requirements – up-to-the-minute market data, and information concerning existing and up-and-coming listed companies – were discussed at some length in chapter five, and the arguments will not be rehearsed in detail here. In the period, 1970-1990, VSE brokers used the telephone, the tickertape, and runners to keep abreast of current market events on the floor of the Exchange. A Vancouver location enabled brokers to keep a close eye on trading activity, permitting fast execution and reporting for clients.

Locating in Vancouver also positioned brokers at the centre of information flows regarding VSE companies. Given the importance of unstandardised sources in the venture marketplace, salespeople found themselves in the same predicament as traders. To be party to informal information “loops”, they had to move in the right social and business circles. A local presence was essential, with a city location going some way to denoting an insider status.

Brokers also located in Vancouver to build relationships with their clients. The Exchange attracted some investment from overseas, but many clients were based in British Columbia, or, more specifically, Vancouver. A significant population base, with higher than average understanding of venture markets, was fertile ground for recruiting new clients. Offices in the city catered for these individuals, providing a business space for the initial meeting and subsequent contact. Bars and restaurants within walking distance of the exchange were well-patronised by clients and brokers. One broker suggested that the social aspect was particularly important,

There's certainly a big social part. ..There were only a few local watering holes where people hung out. I think a lot of relationships were solidified at those types of events (A).

He outlined the most popular venues;

If you look in a three block radius all around here (The Stock Exchange Tower). Legends and Babaloo, and Franks Place, and Joe Forte. You name it. It gets worse as well, it goes down the scale (A).

In addition to providing information on current market conditions and listed companies, a Vancouver location positioned brokers at the centre of a substantial client "pool". Salespeople solidified relationships with these clients in the social spaces of the city. Furthermore, non-Vancouver individuals wishing to trade the VSE frequently sought a city broker. By virtue of their location, "local" brokers were perceived to be VSE experts.

## **Sales, Information, and Location**

1990-

The information requirements of a full-service broker exhibit remarkable consistency over the period in question. That said, technological advances enable brokers to fulfil these needs from new locations. "Standardised" information is now transmittable over computer networks. No advantages accrue to brokers located in Vancouver with respect to market data. Prices and volumes are available world-wide within seconds. As suggested in previous chapters, standardised and unstandardised information concerning companies is also more widely available. As a broker who specialises in TSE equities commented:

I don't think there are any locational imperatives if you've got good communications links. I can get an annual report and download it... And I can browse a company's website pretty much instantaneously. I don't think you can do it faster from Toronto or anyplace else. They're using the same hook-up.... So I think you could be doing this from practically any place (T).

Other brokers, particularly those specialising in CDNX markets, suggested that a Vancouver location is still advantageous, despite the proliferation of information accessible via new technologies. As interviews with traders suggested, understanding and interpreting information may be easier in specific places. One broker reiterated this sentiment:

One of the trends that is happening locally is that there are pockets of brokers that are moving offshore, let's say to the Caribbean, to the Bahamas, Bermuda, Aruba, or something.... And that's a tendency for some clients that they have that want to trade offshore, for whatever reason, and they have their own reasons. Their biggest fear is being out of the loop. Not getting the deal flow. The deal flow being that they don't see the deals going on. They hear about this deal but they have no clue of what the company does, who the management is behind it, who's the brokerage house pushing it, who are the brokers. That kind of thing. They can't find out. Or, by the time they find out, the stock is already gone from a dollar to ten dollars.... There's a big rumour mill about.... That's the real reason why you actually need to be here (G).

Once again, it seems that Porteous' (1995) observation concerning the "distance decay" effect is accurate – if information can now be transmitted across the world, its quality and value decrease markedly over distance. Locating in the city enables brokers to gather market data and information about CDNX companies, but also to interpret it.

The final informational requirement - knowing one's client - is largely unaffected by technological change. Face-to-face interaction retains its importance in gathering this highly "unstandardised" form of information. The personal touch matters in the process of building relationships so critical to maintaining a strong client base. Brokers expressed the opinion that this aspect of their job actually gained in importance as competition from discount brokers and the managed-money business increased. With client numbers and commissions under threat, brokers are more active in seeking new business.

Given these considerations, where are brokers located? The majority of investment dealers retain a Vancouver sales office to maximise exposure to market and company information. In addition, Vancouver sales offices service city-based clients, providing a

place where clients can meet their broker. Some firms keep a head sales office in the city for prestige. A location at the heart of the venture capital industry, it seems, still has a degree of cachet. One broker suggested that there was a difference between setting up a Vancouver office for a client's "benefit", and setting up an office for clients to visit:

Are the offices set up so we can see our clients every day? No. Are the offices set up in a client-oriented way? Yes. You have to ask the question – why are we not in Squamish? Because the rent would be a hell of a lot cheaper in Squamish. And the reason is, you're going to give us your money. And how comfortable would you feel if I was sitting here in a flannel T-shirt and jeans, and we were sitting in some little office in Squamish. You'd be sitting there thinking, um, well, how safe is my money? Because I sit in a fancy office tower, in fancy space, and I'm wearing a three piece suit, you have, wait a minute, there's money here, I can feel the money, I can see the money. They're doing well, so my money's going to be safe. So are we set up to service our clients on a personal meeting basis? We are to some small degree. But the reason we're where we are, and the reason the offices are outfitted the way they are, is all built around reputation and impression (R).

A fund manager had a very different view, commenting,

There are the top buildings in Vancouver.... We don't want that type of building, because when our clients come in and see the nice furnishings or whatever, well, who paid for them? (J)

The most noticeable locational trend in sales, however, is the creation of satellite offices. Brokers suggest that this is driven by the desire to create and improve relations with clients. Small towns in British Columbia such as Courtenay, Chilliwack, and Kelowna, are now served by a variety of different investment dealers. In locating close to communities with large numbers of wealthy retirees, a prime investing group, dealers are

trying to access a previously under-serviced population. Several brokers observed that the demographic group being targeted responded well to face-to-face relationship building.

One rather cynically noted:

You're going to build those relationships far more effectively being in the community... You can also attract people to come as your clients, which is why every brokerage firm in the world has a number of their people who are involved in community affairs of some sort. The local hospital, things like that. Because who else is involved in it? People who have lots of money, and if they like you, and you develop a relationship, they'll come and deal with you. Plus you're putting an image of your firm, being responsible, being involved in the community. So all of those things are the other side of what technology can do for you (S).

Brokers, no longer tied to the city for market or company information, are taking advantage of technological developments to improve client relations. Salespeople access in-house trading, research, and corporate finance departments remotely. Incurring relatively small start-up costs, two or three brokers create a branch office, and "leverage-off" market and corporate information flows captured in the city, via telecommunications links. One broker commented on what he saw as this paradoxical trend:

Technologically, it is not as necessary to be as close to the core as it was. And it's important to be close to the clients, physically, which is sort of a contradiction in a sense. Technology allows you to be further from the centre, which means you're getting the information and access to the professional side of it, and this allows you to be close to the clients.

In some respects, then, my findings contradict those of Code (1991), who suggests that proximity to other financial professionals is more important than proximity to clients. He

comments, “As yet, technological and organisational advances have not been sufficient to allow the (financial) community’s dispersion, even within the urban area. On the other hand, technological and organisational improvements appear to have increased the rate at which relevant information is fed into and disseminated outward from the community.” Code talks in general terms of the “financial community”, but his argument for the persistence of centralisation may be more applicable to trading than to sales.

Regulatory requirements limit decentralisation of the sales function, however. As suggested in chapter six, the international and national deregulatory trends theorised by O’Brien have been slow to filter down to provincial and local levels. Provincial regulatory bodies regulate brokers and protect the interests of provincial investors, so when an Ontario-based client deals with a BC-based broker, the jurisdictions overlap. In order to overcome such problems, some brokers register in several provinces.<sup>130</sup> In the case of Quebec, however, it is almost impossible for BC brokers to trade with Quebecois clients. US regulations, as dictated by the Securities and Exchange Commission (SEC), also prohibit Canadian brokers from soliciting US clients. One regulator responded thus to my question about globalised markets:

These are current examples. I’m a broker here, and my client goes for a three week golfing vacation in Phoenix, and theoretically I can’t talk to that client. It’s against Arizona state law. And three weeks might not strike you as a problem, but we have a lot of Canadian snowbirds, and that is a problem.... How do we call it a global market when I’m a broker in BC, and my client moves to Alberta, and I can’t talk to him? Then you get the anomalies, where my same client doesn’t move to Alberta, but moves to Hong Kong, and then I can talk to him. So go figure (L).

Regulation also prevents brokers from following technological developments to their “logical” conclusion, and working from home. Theoretically, any broker with a computer and the appropriate telecommunications can access market and corporate data, as well as trading engines. Some brokers are allowed to work at home as a temporary measure (e.g., when on sickness or maternity leave), but, in general, regulations prohibit homeworking. A representative of the Investment Dealers Association told me there were “hundreds” of rules concerning homeworking, including stipulations that it must be full-time, and must be conducted from a demarcated office space. In Vancouver, a very small number of “pilot” cases have been approved. Reticence seems to pivot around the issues of supervision. One CDNX employee commented, “We have to make sure this person is supervised, and their kid isn’t sitting under the workstation keying in orders” (K). A broker wryly noted,

The brokerage industry is easily the most regulated industry in the world...And that regulation only works when they’ve got levels of supervision. Those levels of supervision don’t exist when everybody’s at home, in their little office, in their pyjamas (R).

A second reason put forward to explain regulatory reticence involves reputation, an issue of particular concern in venture markets. BC regulatory bodies want to create a more positive and respectable image of the stock exchange and its participant members. A broker explained:

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<sup>130</sup> Becoming a registered representative involves different processes in every province.

The reason we haven't done a lot of this stay at home is because the regulators don't think that's an appropriate impression to create for the public. They don't like the idea that if you're dealing with Jim, you may go and see Jim in his pool cabana which he's turned into an office. They don't think that's an appropriate way for an investment dealer to appear. You should always go and see your investment dealer in an office..... If you have an office as part of your house, it actually has to be a separate building, with a separate entrance, and a separate sign. They're really not into home offices (R).

Some interviewees suggested that the regulations regarding homeworking might be relaxed by the British Columbia Securities Commission (BCSC) in the near future. The recent reorganisation of Canadian stock exchanges brought the question of national regulatory harmonisation to the fore, and provincial regulatory bodies are working to remove barriers to integration. Proposals for a single Canadian regulatory body, however, met resistance from entrenched regional interest groups. For the time being, at least, provincial regulatory considerations continue to restrict locational mobility. While O'Brien (1992) asserts that the integration of rules is creating a homogenous regulatory environment, it is certainly not homogeneous in Canada. In fact, regulatory control at the CDNX is stricter than under the VSE (at least of the 1970s and 1980s).

Discount brokers exhibit quite different locational preferences to their full-service counterparts. In relocating to small towns, full-service brokers (and money-managers) move closer to clients in an attempt to know them better. Discount brokers, by contrast, are not encouraged to build relationships with clients. Clients phone 1-800 numbers, or e-mail requests to anonymous addresses. Information about clients has little value for a discount broker. As one broker put it, "If you're a discount broker, you might as well be in Juneau, because there is no relationship... Location is completely indifferent." Since no

advice is offered, a discount broker requires little information about the listed companies. The only form of information on which they rely is market information, which is standardised and ubiquitous.

As a result, most discount brokers centralise their order taking. Operating on reduced margins, the discount brokers cut costs by employing lower-paid staff, and working from lower-rent spaces. TD Greenline operates from the outskirts of Toronto. However, although the vast majority of “salespeople” at discount brokerages work in call-centres removed from downtown locations, in recent months several discount brokers opened storefront centres in downtown locations. In Vancouver, the TD Waterhouse Investment Centre opened in January 2000. In addition to limited printed and on-line research, visitors to the Dunsmuir Street centre have access to five investment representatives. Charles Schwab Canada also opened an office in downtown Vancouver in January. An Asia-Pacific office, catering to Asian clients, is scheduled to open in Richmond later this year. With reference to this “clicks and mortar” approach, Schwab Canada’s Chief Operating Officer, Sean Church commented, “Customers want to know that there is a face behind the company.”<sup>131</sup> 70% of new Schwab accounts are opened in person, and offices act as forums where clients can go and discuss concerns or queries. Remarking on this trend, one broker noted, “When it comes to money, people do like to have the ability to see the person’s face, and say that’s the person I’m giving money to” (W). Even in discount brokerage, it seems, clients expect a degree of face-to-face interaction.

## **In Summary**

Once again, does geography matter for a financial product such as venture capital? Interviews with brokers suggest that the selling of venture equities was tied to the city in the period 1970-1990. As with traders, a Vancouver location gave salespeople informational advantages with respect to both market data and corporate information. The volatility of the junior market rendered proximity even more advantageous.

The automation of market and corporate data altered this equation. From the late 1980s, full-service sales operations have decentralised, although it remains advantageous (with respect to both information and prestige) for a firm to have a presence in Vancouver. Many brokers now successfully sell CDNX venture equities from locations across Canada, although regulatory considerations keep most in British Columbia. In doing so, they maximise information flows between themselves and their clients. Geography matters, but for new reasons. However, if technology and regulation converge to permit direct client access to trading systems, the locational requirements of brokers may become a moot point. As one interviewee put it:

Increasingly people are saying they don't need a broker at all. If you don't need one, you don't care where they're located right? (F)

This brings me to my second research question. Does geography matter in different ways for the different services involved in venture capital markets? I reserve comment for the

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<sup>131</sup> Cited in Atkinson, 1999.

next, and concluding, chapter, where I compare and contrast the three services considered here.

## CONCLUSION

The thesis began with Richard O'Brien's pronouncement that the "end of geography" is nigh. A combination of technological and regulatory developments, he argues, mean that geography is rapidly losing purchase as an explanation of the structure of global financial markets. The arguments presented in this thesis, however, were framed in reference to a competing theory. Clark and O'Connor suggest that O'Brien is mistaken, both empirically and theoretically. Empirically, they find "no evidence that the global finance system is systematically centralising to a point or fragmenting into a thousand pieces" (1997:107). Their theoretical argument pivots on what they term the "informational content of financial products" (1997:89). Financial information possesses a geographical logic that varies according to the product. Information about gold, or other "transparent" products, is ubiquitous, but the production of "opaque" products is dependent on local information sources. Contrary to the obliteration of geography, Clark and O'Connor argue for its continued importance, represented, for example, by smaller national and regional financial hubs flourishing alongside global centres, and which act as information niches for specific financial products.

My first research question spoke directly to Clark and O'Connor's assertion. How does geography matter for a financial product such as venture capital? I highlighted four

particular informational characteristics that, in my opinion, suggest venture capital is an opaque product: (i) the resource emphasis of venture companies; (ii) the lack of documentation pertaining to start-up ventures; (iii) the importance of management in evaluating start-up ventures, and (iv) the tendency for “scam” activity to gravitate towards venture marketplaces.

My research in Vancouver testifies to the opacity of the venture equities product. Venture capital markets in Canada emerged to raise capital for resource-oriented start-ups. Mining and other resource ventures generate large quantities of information, and financial intermediaries collect, filter, and interpret assay reports, press releases, and so on. Vancouver’s initial proximity to resource industries in British Columbia positioned it as the nucleus of information flows, and the city developed into a centre for venture financing. The scarcity of standardised forms of information pertaining to venture companies exacerbated the reliance on unstandardised forms, and contributed to the importance of a city location for those involved in the market. Lacking corporate reports and financial records, Vancouver’s financial intermediaries gleaned information through interaction with the companies themselves, and which often located in the city. Social and business networks also provided gossip and information about companies. Finally, illegal financial activity contributed to the opacity of venture equities. Transacting on a stock exchange labelled the “scam capital of the world” required high-quality information, and the ability to interpret it. Since most press releases and assay reports were elaborate fictions, the most valuable information was of the “inside” variety. Highly

unstandardised, it passed between friends and acquaintances in the confined spaces of the city.

Until the 1980s, the production of venture equities in Vancouver was highly opaque. Company directors, promoters, lawyers, traders, brokers, and financiers mingled in downtown bars and restaurants, forming a competitive, but complicit, community. Vancouver was, to use Clark and O'Connor's terminology, a "sub-national" financial centre, where information about venture equities was gathered, interpreted, and monitored. Participating on the Vancouver Stock Exchange from another location was financially suicidal.<sup>132</sup> In the 1980s, however, the opacity of the product diminished. The venture market diversified away from resources, and toward junior industrial, light manufacturing, and technology, all of which began to be listed on the VSE. New technologies, particularly the internet, facilitate worldwide transmission of standardised information pertaining to venture companies. Interested parties search for information about CDNX-listed companies on the Exchange homepage, and retrieve the prospectus from the SEDAR website. Even the rumour and gossip so critical to interpretation of venture markets is digitised on internet bulletin boards. Furthermore, the Vancouver marketplace became more transparent as regulatory tightening by provincial and self-regulatory bodies stemmed illegal practices. By the mid-1990s, the VSE was no longer an insider's market, and those located outside the city competed on more equal terms.

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<sup>132</sup> The president of a regional investment dealer commented, "Toronto looks at us as the Wild West.... Once in a while they came out and played in our market, and they got carved in seconds flat. They don't know what they're doing. They've no idea" (R).

Clark and O'Connor (1997) note that financial products move along the spectrum from opaque, to translucent, to transparent. The aforementioned developments suggest that venture equities, first on the VSE, and later the CDNX, are losing their opaque quality, and assuming the characteristics of a translucent product. But if venture equities are less opaque, has geography diminished in significance? The answer to this question is tentative: "to some degree". According to Clark and O'Connor, if the VSE now specialises in a translucent product that relies on local information, it should be produced in national centres to achieve scale economies. The birth of the Canadian Venture Exchange (CDNX) in the recent reorganisation of Canadian exchanges represents the realisation of Clark and O'Connor's thesis. Venture capital is now organised at a national scale. The junior listings from all Canadian exchanges amalgamated, and a national venture exchange – the CDNX – was born. The CDNX is creating a network of provincial offices, but operations are split between just two centres, Vancouver and Calgary. Technically, Vancouver is no longer a sub-national centre for venture capital, but a national one. The extent to which this is more than an administrative change, though, remains to be seen. The CDNX is, to paraphrase an interviewee, less parochial than the VSE, but recognition of its national status, both in Canada and internationally, may take some time.

My second research question endeavoured to build on the work of Clark and O'Connor. While attentive to different financial products, they ignore the heterogeneous services involved in what they term the "production process." It seemed to me, however, that services also have "logical" locations, dictated by their information requirements. To this

end, I posed the question: Does geography matter in different ways for the services involved in venture capital markets?

Research in Vancouver suggests that trading, corporate finance, and sales – three services involved in the production of venture capital – each have different informational needs. This results in diverse geographies of trading, financing, and selling. However, it is evident that as each service evolves over time, these geographies are made and re-made. O'Brien (1992) argues that technological and regulatory developments are driving change in financial markets. In Vancouver, the impact of new technologies on the venture market is palpable. Regulatory change is also manifest, but, contrary to O'Brien's narrative, it has tightened, not released, its grip on financial activity.

The thesis examined each service in two broad periods, 1970-1990, and 1990-the present. It considered the information requirements for each period and service, and the impacts they had on location.

The first service considered was trading. Traders require past trading data, as well as up-to-the-minute market information. They also need information about current and forthcoming listed companies. In the period 1970-1990, a place on the trading floor of the Vancouver Stock Exchange was almost obligatory. From the floor, traders had instantaneous access to market information, of both standardised and unstandardised forms. Traders viewed prices and volumes on the chalkboard, and inferred market plays by observing the behaviour of other traders. A location in the city was a passport into

social and business networks, where information regarding companies were circulated. Without a presence in Vancouver, traders were informationally disadvantaged.

All this began to change, however, in 1990, when the VSE implemented fully-automated trading. Made possible by developments in computer networking technology, automated trading altered the provision of information, and the locational requirements of traders. Up-to-date market information is available on computer screens, and traders interpret an automated book. Information about listed companies is disseminated through the internet. If venture equities traders can fulfil their informational requirements remotely, however, most remain in Vancouver. Traders reiterate the usefulness of the city's "sociability". Working in close proximity to others in the venture market assists the process of interpretation, and magnifies the chance of finding that "extra" piece of information.

Second, I considered the corporate finance function. Interviews with Vancouver financiers reveal different informational priorities. Financiers need to evaluate the people behind start-up companies. They also require standardised information about the company, including financial documentation. Finally, they co-ordinate reports and referrals from lawyers, accountants, and technical experts. In the promoter-driven market of the seventies and eighties, financiers lost large amounts of money if they made an inadequate assessment of a promoter or start-up. The "inside" information required to make a good appraisal was highly unstandardised, and circulated in tight networks. An "inside" location was critical. From a Vancouver office, financiers also gathered and co-ordinated documentation for the prospectus with relative ease.

For the corporate finance service, contrary to O'Brien, regulation intensified during the late 1980s. Provincial and self-regulatory bodies made life very difficult for those promoters and underwriters engaged in "scamming" the public. The role of the promoter diminished, and financiers now assess start-up ventures on the merits of management. More rigorous prospectus requirements mean financiers spend large amounts of time collecting information about the company. As a result, a Vancouver location is still helpful, facilitating face-to-face deal-making, and site visits to venture companies in the region.

Finally, what of the sales function? Brokers require market data, and research on listed companies. This information is passed onto clients in the hope of inducing trading activity. More importantly, generating business is dependent upon building relationships with clients. In the period 1970-1990, gathering market data and research on venture listings was very difficult outside Vancouver. Brokers were in the same predicament as traders and financiers. The opacity of the venture product meant that information *worth having* was only available to a select group of insiders. In the late 1980s, this started to change, as technological developments augmented the availability of market data and information on venture companies. In Vancouver, some brokers took advantage of their locational flexibility, and set about improving relationships with clients. Brokers located in small communities and suburbs, facilitating one-to-one interaction with clients, and enlarging their customer base. Such decentralisation is limited by regulatory

considerations, however. Brokers are not permitted to work from home, and soliciting clients from other provinces and countries is mired in red-tape.

Understanding the diverse informational requirements of financial services, then, helps to explain their locational distribution. In this way, the thesis extends the argument put forward by Clark and O'Connor regarding financial products. The location of a product, *or* service, is partly determined by its informational composition. However, my research into financial services also challenges an assumption made by Clark and O'Connor. In homogenising the processes involved, Clark and O'Connor assume that all production activity for a given financial product is conducted from the same location. Financial goods are "produced" *either* in sub-national, *or* in national, *or* in international centres.

Current production of venture capital, by contrast, tells a different story. The information required to trade venture equities is increasingly (if not entirely) ubiquitous, and investment dealers centralise trading in one location. In Canada, most investment dealers chose Vancouver for this purpose. Some national and international firms amalgamated their junior and senior market trading, and operate from Toronto. However, if trading is conducted from a single national centre, corporate finance is more diffuse. Financiers need occasional face-to-face interaction with the management of start-up companies, and many investment dealers have offices in most provinces to facilitate this. Offices in Vancouver service British Columbia. Finally, brokers moved closer to their clients, and are now found in small towns and suburbs. It is possible, then, to mimic Clark and O'Connor, and create a threefold typography for financial *services*, predicated on a

hierarchy of national, regional, and local centres. They suggest that transparent products are produced in global centres, translucent products in national centres, and opaque products in sub-national centres. I suggest that trading is conducted from a national centre, corporate finance from regional centres, and sales from local centres. Following this line of reasoning, the services involved in the production of venture capital have different information characteristics, and, *logically*, locate in different places.

If such typographies or schemas are elegant, they are somewhat limited in their explanatory power. As noted in the empirical chapters, informational requirements, even within a service, can conflict. A broker's need for market and client information, for example, pulls in opposing directions, and there is no single locational resolution. The existence of conflicting needs and resolutions signposts the difficulties involved in understanding the actual, as opposed to logical or theoretical, spatial structure of financial services and products. Clark and O'Connor acknowledge this with respect to their hierarchy of financial products. They comment:

It would be misleading ... to leave the reader with the impression that the logic apparent in the foregoing discussion of products and places is an adequate and sufficient representation of the structure of the financial world (1997: 105).

Their analytical strategy allowed them "a broad integrative perspective matching in substance the breadth of debate apparent in discussions of the global city" (1997: 104). However, it also meant that other factors were neglected. Towards the end of their paper, Clark and O'Connor return to institutional differences between markets, and differences

in regulatory frameworks, suggesting that these, and other factors, may also shape the geography of financial markets. In Vancouver, as we have seen with the corporate finance and, to a lesser extent, sales functions, there is ample evidence of such regulatory “stickiness”. O’Brien (1992) may be correct to speak of national and international regulatory integration, but in Canada, provincial regulation places firm limitations on financial markets. Financial services are not locationally “footloose”, but restricted to specific places.

Clark and O’Connor also dedicate a section of their paper to “custom and convention” in finance. Their typology of products and hierarchy of places, they note, is underpinned by assumptions of rational optimising behaviour – a logic “quite insensitive to history and geography”. Research in Vancouver also suggests that it is erroneous to assume firms necessarily make rational locational decisions. Inertia, an interviewee noted, characterises financial and other institutions – “change is glacial in any organisation” (A). A trader suggested that what is “rational” in the short-term may be less than advantageous in the long-term.

It’s so easy to decide right now that we don’t need a Vancouver office, or we don’t need a Calgary office, because that area’s dead. The worst thing you can do is close an office, because you can leave, but it’s very hard to return. People have long memories, and they take it as a personal slight when you close an office. So that’s always a consideration (P).

During the course of my research, a variety of locational considerations for firms were brought to my attention. One interviewee outlined the importance of human capital in making locational choices:

Having a nice location to work in is very important to brokers. They're a breed amongst themselves. They have certain expectations. It's a business where you have many successful people.... So therefore having a location that is suitable to their expectations is kind of important (G).

The logic or rationale for locational choices is not always immediately obvious. A trader explained to me why his firm devoted considerable resources to creating an illusion of a local operation:

When we underwrite a company in the oil patch, let's say, some companies will really want to deal with the local network of people. We responded to that to some degree by opening a small office in Calgary. But to be honest what we do in that office is trade commodity futures. We don't underwrite. But our investment banking group try to be very present in that office. They have meetings in there, so it seems that we're part of the fabric there....That's the story (O).

If I demonstrated that there is an informational logic behind both the venture capital product, and the services involved in its production, the above comments also suggest that there remains a place for a more complex and sophisticated explanation of the spatial structure of the industry. Understanding the various locational variables at play for financial firms is critical for a city like Vancouver. As venture capital becomes less opaque, Vancouver's dominance unravels. To remain a venture capital "hub", the city must retain its status as a national centre for junior trading, and a regional centre for

corporate finance activity. If successful in preserving this niche, Vancouver ultimately may fare better than Toronto, a city forced to compete with many other cities, including its near neighbour, New York. Battles for different financial products during the recent restructuring of Canadian exchanges testify to the importance of choosing both a product niche and a service niche with care. As cities undertake strategic manoeuvres to improve their position in the global financial hierarchy, understanding the informational content of products *and* services is a necessary step, if not altogether a sufficient one. Between the two lays the contingency of geography.

## APPENDIX 1

### METHODOLOGY AND FIELD WORK

The field work for the thesis was undertaken in the Spring of 1999, in Vancouver. I wanted to interview representatives of investment dealers, and others who could cast light on the venture capital market in the city. My first telephone call was to a financial columnist at the local newspaper. My request for an interview was sharply rebuffed. I tried another tactic – using contacts. Rob Heinkel, a Professor of Commerce at the University of British Columbia, was kind enough to scour his business address book, and for this I owe him a debt of gratitude. He provided me with ten names and telephone numbers, and let each person know that they would receive a call from one of his students. Many of these people volunteered other potential interviewees, and, in total, I conducted twenty-three interviews.

The interviews I secured can make no real claim to representativeness. Financial institutions are difficult places to do research. As Linda McDowell (1997) astutely notes, “Professionals in the financial services sector cultivate a surface appearance, and perhaps a reality, of extreme workplace pressure” (1997: 214). Under such circumstances, a researcher is inclined to take whatever opportunities present themselves. That said, I was fortuitous to interview a cross-section of venture market participants. This included sixteen representatives of CDNX member firms, encompassing bank-owned “financial

supermarkets” and smaller “boutique” operations, Vancouver and Toronto-based firms, and so on. I spoke to key personnel at the Exchange, as well as representatives of regulatory organisations. Finally, I met with other members of Vancouver’s financial “community”, including a real-estate mutual fund manager, and the president of a venture capital fund. Interviews, ranging from fifteen minutes to an hour and a half in length, were held downtown at the interviewee’s place of work. I made arrangements for each interview over the telephone, and later sent each participant a brief note outlining my research. All interviews were tape-recorded and later transcribed. In one case, company policy prohibited tape-recording of interviews, and I made notes by hand. Appendix 2 shows the job title of each interviewee, the type of employing organisation, and the date and length of the interview. To preserve confidentiality, individuals are referred to as “A”, “B”, “C” in the table and in the main body of the thesis. For the same reason, companies are not named.

The interviews I conducted were semi-structured. This follows the lead of Schoenberger (1997), McDowell (1997), and Ter Hart and Piersma (1990), who use semi-structured interviews in their studies of corporations and financial firms.<sup>133</sup> Quantitative methods, such as questionnaires, address specific queries, but I wanted to capture opinions, and follow up on points of interest. As Ter Hart and Piersma comment,

We opted for the technique of open interviews with key figures, a technique best suited for inquiries into the intricate problems of strategic

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<sup>133</sup> Erica Schoenberger, in a 1991 article, argued that the corporate interview as a qualitative research method, “is only rarely encountered in contemporary economic.. geography” (1991:180). This has changed in recent years, however, as McDowell (1997), Clark (1998), and Leyshon and Thrift (1997), among others, undertook qualitative research in financial institutions.

corporate policy decision-making. Such problems are often so complex and companies are so varied that large scale questionnaire surveys are useless (1990:83)

I started with “factual” questions about the individual and the firm. This supplemented information gathered from corporate brochures and web-sites, and often helped build rapport. From then on, I tailored the questions to the interviewee’s area of expertise. Appendix 3 outlines the questions I posed to the vice-president of a regional investment dealer. In the case of VSE/ CDNX employees, my inquiries focused on the operations of the stock exchange, and, more particularly, the mechanics of the trading process. I asked employees of investment dealers to describe their work, and its information requirements. I also probed for impressions and opinions on topics such as the importance of location. Interviewees raised new ideas and issues, and the open interview format meant that I was able to pursue these.

I was fortunate to interview some very senior personnel. One of my initial contacts was the vice-president of a national investment dealer. At the end of the interview, he inquired if I had secured other interviews. He promptly supplied me with six more names and telephone numbers. I did not know it at the time, but each one of these individuals was the president of their respective firm. In many cases, this did not emerge until I arrived at the interview, and was shown into the largest office in the building. These interviewees provided broad overviews of the company, and its organisational structure. They also commented on corporate strategy, elaborating on how locational (and other) decisions are made. Individuals lower down the corporate ladder, by contrast, were understandably reluctant to speak “for” the firm.

Interviews with senior management and other industry “veterans” had a further advantage. It emerged that several interviewees had experience of various business areas. During his working life, one gentleman was a floor trader, then a broker, before finally assuming a regulatory role. The majority of interviewees had worked in the financial industry for more than fifteen years, and reflected on their current employment, but also past work in other capacities, or with other VSE member firms.

### **Reflections on the Research Process: Positionality, Power, and Gender**

The difference that gender makes in financial markets is of pressing concern. Linda McDowell’s (1997) ethnographic study of three London banks offers an insightful glimpse of gender cultures in the workplace. Elucidating the gender dynamics of Vancouver’s venture capital markets warrants an entire thesis, and, unfortunately, was omitted from this study. In this section, however, I do want to consider questions of gender and positionality arising from the actual research process.

In general, the research process was a very positive experience. I secured interviews with relative ease, and found people polite, articulate, and generous with their time. It was evident that some interviewees had considered my research questions (as outlined in my note of introduction), and had thoughts and ideas prepared. Reflecting on the research process, though, it is interesting to consider the question of power relations. On numerous

occasions during my field-work, I felt slightly intimidated. Every time I performed my introductory telephone “spiel”, I was acutely aware that I could offer nothing, aside from a copy of the finished product, in return for the favour of an interview. Furthermore, during the course of the interview, I was always mindful that I may be preventing the interviewee from attending to more important business. In one particular (and, thankfully, isolated) incident, the president of a venture capital fund made it quite clear that I was “wasting his time”. At the very beginning of the interview, I asked him a basic question about the company. He curtly suggested that this information was available on the company website, and did not warrant a personal meeting.

The interviewee in question was probably right to make this point. I thought that asking straightforward questions about the company was a good way to make the interviewee more comfortable. On reflection, the purpose was probably to make *me* more comfortable. After a fashion, the experience with the venture fund manager was rather like being slapped on the wrist. The incident caused me to reflect on my positionality. It is entirely plausible that the man in question is brusque in his dealings with everyone. Venture fund managers are accustomed to having people fight for their time and attention. However, I also wondered if he, and others, responded to me differently because I was a woman, or because I was young.

Linda McDowell (1992) berates Erica Schoenberger for ignoring questions of gender in her study of the corporate interview as a research method (Schoenberger, 1991). A sizeable feminist literature now deals with the significance of gender relations and the

differential power involved in research contexts (Acker et al, 1984; Roberts, 1981; Gurney, 1985). For McDowell, "the fact that she (Schoenberger) is a woman and... the majority of her respondents were men" is "one of the most significant factors in her research" (1992:214 ). Writes McDowell,

Interviewing is a game in which participants are often playing with a different set of rules. Both the scholar and the respondent construct a particular version of themselves in interviews which is then re-interpreted and re-presented in different ways (1992 :214).

For McDowell, a female interviewer potentially elicits a particular "performance" from the interviewee. In a reply published in the *Professional Geographer*, Schoenberger responds,

I agree with McDowell that gender makes a difference. The reason I did not talk about it was that I am not sure precisely what difference it makes, and I am not sure how I would know (1992:217).

I felt acutely aware of my "femininity" as I waited in reception areas of investment dealers. Of my interviewees, twenty-two were male, and one was female. Gender divisions of labour may be changing in the financial world, but it is a slow process. Most of the receptionists greeting me were female, and most of the financiers, brokers, and traders emerging from offices were male. However, as Schoenberger acknowledges, it is very difficult to theorise the impact this has on the research process. The fact that I am female may have made it easier for me to secure interviews. It may have meant interviewees gave me more time. My gender, age, and demeanour may have rendered me unthreatening, and encouraged people to be more forthcoming. Or, they may have had the

opposite effect. As Schoenberger observes, such suggestions are inherently speculative, but worthy of consideration when engaging with this, and other, ethno-geographies of finance.

APPENDIX 2  
LIST OF INTERVIEWEES

Interviewee	Role	Company	Date of I/V	Length of I/V
A	Equity analyst	Regional investment dealer	20.03.00	60 mins
B	Broker	National investment dealer	20.03.01	50 mins
C	Broker	International investment dealer	21.03.00	70 mins
D	Former VSE public governor	VSE	22.03.00	60 mins
E	President of sales	National investment dealer	24.03.00	60 mins
F	Executive director	Provincial Regulatory Organisation	24.03.01	70 mins
G	Corporate financier	Regional investment dealer	27.03.00	70 mins
H	Vice-president	National investment dealer	29.03.00	30 mins
I	Vice-president of corporate finance	National investment dealer	29.03.01	80 mins
J	President	Real-estate investment fund	29.03.02	80 mins
K	Technology manager	VSE/ CDNX	30.03.00	90 mins
L	Provincial director	Self-Regulatory Organisation	14.04.00	60 mins
M	President	Regional investment dealer	14.04.00	15 mins
N	President	Regional investment dealer	28.03.00	90 mins
O	Trader	International investment dealer	30.03.01	60 mins
P	Trader	International investment dealer	30.03.00	20 mins
Q	President	National investment dealer	19.04.00	25 mins
R	President	Regional investment dealer	12.04.00	50 mins
S	Vice-president	Regional investment dealer	11.04.00	50 mins
T	Broker	National investment dealer	13.04.00	30 mins
U	Trading manager	VSE/ CDNX	14.04.00	90 mins
V	President	Technology venture capital fund	18.04.00	30 mins
W	Director of Sales and Research	Regional investment dealer	19.04.00	50 mins

## APPENDIX 3

### SAMPLE INTERVIEW QUESTIONS

#### **The Interviewee**

- Could you give me a brief outline of your history in the financial industry?
- What does your current job involve?

#### **The Investment Dealer Firm**

- Could you tell me about this firm and what it does?
- When and where was the firm founded?
- Where do you have offices?
- Where is the head office?
- Are your major clients small investors or institutions?
- Is your business mainly oriented to venture stocks?
- How are the dealers organised? Do they deal with particular clients over a broad base of stocks, or do they specialise in one exchange, or type of stock?

#### **Locational issues**

- When working with VSE stocks, did having a Vancouver office give you an advantage over someone in London, or in Toronto?
- If yes, which area of your business did it benefit? Customer service? Underwriting? Trading?
- Where did most VSE member firms locate?
- Does having a Vancouver office give you any advantage when working with CDNX stocks?
- Has the advent of the CDNX affected your locational requirements/ priorities as a company?
- Is it important to be located near clients, or other investment dealers?

### **Information and Technology**

- Was information gathered by informal means (e.g. non-standardised information such as rumour, gossip etc) important in venture markets?
- What kind of information products do you use? How much importance do you attribute to these types of information vis-a-vis more informal sources?

## BIBLIOGRAPHY

- Aarsteinsen, B. 2000: "Day-trading craze gaining momentum," *Vancouver Sun*, February 4, F1, F6.
- Acker, J., Barry, K. and Esseveld, J. 1984: Objectivity and truth: problems in doing feminist research. *Women's Studies International Forum* 6 (4), 423-35.
- Atkinson, P. 1999: "Tools of the Trader," *CIO Enterprise*, November.
- Boden, D. and Molotch, H. 1993: The compulsion of proximity. In R. Friedland and D. Boden eds., *Now/here. Time, space and modernity*. Berkeley: University of California Press.
- Bodie, Z., Kane, A., Marcus, A., Perrakis, S. and Ryan, P. 1997: *Investments* (2nd Canadian Ed.). Toronto: McGraw Hill Ryerson Ltd.
- Canadian Venture Exchange, 2000: *CDNX Review*. March.
- Caldwell, M. 1987: *The Wizards: Millionaire magicians of the Vancouver Stock Market*. West Vancouver, BC: Creative Classics.
- Castells, M. 1989: *The informational city: economic restructuring and urban development*. Oxford: Blackwell.
- Cerny, P. 1994: The dynamics of financial globalisation: technology, market structure and policy response. *Policy Sciences* 27, 319-342.
- Clark, G. 1997: Rogues and regulation in global finance: Maxwell, Leeson, and the City of London. *Regional Studies* 21, 221-236
- Clark, G. 1998: Stylized facts and close dialogue: methodology in economic geography. *Annals of the Association of American Geographers* 88 (1), 73-87.

- Clark, G. and Wojcik, D. 1999: The City of London in the Asian crisis. Working Paper WPG 99-17. Oxford: School of Geography, University of Oxford.
- Clark, G. and O'Connor, K. 1997: The informational content of financial products and the spatial structure of the global finance industry. In K. Cox, ed., *Spaces of globalisation*. New York: Guilford Press, 89-114.
- Coakley, J. 1994: The integration of property and financial markets. *Environment and Planning A* 26, 697-713.
- Code, W. 1991: Information flows and the processes of attachment and projection: the case of financial intermediaries. In S. Brunn and T. Leinbach, eds., *Collapsing Space and Time*. London: HarperCollins Academic, 132-148.
- Coutarelli, S. 1977: *Venture Capital in Europe*. New York: Prager Special Studies in International Economics and Development.
- Corbridge, S. 1993: *Debt and Development*. Oxford: Blackwell
- Corbridge, S. Martin, R. and Thrift, N., eds. 1994: *Money, power and space*. Oxford: Blackwell.
- Demont, P. 2000: "Investors pour \$2.7 billion into Canadian ventures," *Vancouver Sun*, April 7, H1, H2.
- Dobilas, G. 1996: The Canadian financial system in international perspective. In J. Britton, *Canada and the Global Economy*. Montreal: McGill-Queens University Press.
- Du Plessis, A. 1988: *Sideshow: The Howe Street carnival*. Vancouver: Peterade Press.

- Fells, G. 1988: Venture capital in Canada – a ten-year review. *Business Quarterly* Spring, 1988.
- Francis, D. 1988: *Contrepreneurs*. Toronto: Macmillan of Canada.
- French, S. 2000: Re-scaling the economic geography of knowledge and information: constructing life assurance markets. *Geoforum* 31, 101-119.
- Gambetta, D. 1988: *Trust: making and breaking co-operative relations*. New York: Basil Blackwell.
- Gibbens, R. 1999: “Single exchange forecast for North America: TSE, ME on periphery? Continent could turn into one huge trading floor. *Financial Post*, June 5, D1, D4.
- Graham, S. and Marvin, S. 1996: *Telecommunications and the city – electronic spaces, urban places*. London: Routledge
- Green, M. 1993: A geography of institutional stock ownership in the US. *Annals of the Association of American Geographers* 83 (1), 66-89.
- Green, M. 1988: Patterns of preference for venture capital investment in the US, 1970-1985. *Environment and Planning C*.
- Gurney, J.N. 1985: Not one of the guys: the female researcher in a male dominated setting. *Qualitative Sociology* 8 (1), 42-62.
- Halpern, P. 1999: “Stock exchanges respond to market forces,” *The National Post* v.1 (124) March 22, C7.
- Hamilton, A. 1986: *The financial revolution: the Big Bang worldwide*. Harmondsworth: Viking/ Penguin.

- Hammond, G.S. 1987: "Recent developments in the swap market," *Bank of England Quarterly Bulletin* February, 66-74.
- Harvey, D. 1989: *The condition of postmodernity*. Oxford: Blackwell
- Haslett, B. 1984: *Venture capital and regional high technology development*. In Technology, innovation and regional economic development, Office of Technology Assessment Report No. OTA-STI-238, July, 41-50.
- Helleiner, E. 1996: Post-globalisation: is the financial liberalisation trend likely to be reversed? In R. Boyer & D. Drache, eds. *States against markets*. London: Routledge, 93-210.
- Hepworth, M. 1991: Information technology and the global restructuring of capital markets. In S. Brunn and T. Leinbach, eds., *Collapsing Space and Time*. London: HarperCollins Academic, 132-148
- Hirst, P. and Thompson, G 1996: *Globalisation in question*. Cambridge: Polity.
- Hudson, A. 1998: Placing trust, trusting place: on the social construction of offshore financial centres. *Political Geography* 17, 915-937
- Keane, F. 1996: *The Vancouver Stock Exchange: world's greatest venture capital market*. White Rock: Keane Productions Inc.
- Kerr, D. 1965: Some aspects of the geography of finance in Canada. *The Canadian Geographer* IX (4), 175-192.
- Knight, R. 1986: Criteria used by venture capitalists. *Journal of Small Business Enterprises* 3, 3-9.

- Lee, R. and Schmidt-Marwede, U. 1993: Interurban competition? Financial centres and the geography of financial production. *International Journal of Urban and Regional Research* 17, 492-515.
- Leyshon, A. 2000: Money and finance. In E. Sheppard and T. Barnes, eds., *A companion to economic geography*. Oxford: Blackwell.
- Leyshon, A. and Thrift, N. 1997: *Money/Space*. London: Routledge.
- Leyshon, A. Thrift, N. and Tommey, C. 1989: The rise of the British provincial financial centre. *Progress in Planning* 31, 151-229.
- Leyshon, A. and Tickell, A. 1994: Money order? The discursive construction of Bretton Woods and the making and breaking of regulatory space. *Environment and Planning A* 26, 1861-1890.
- McNaughton, R. and Green, M. 1989: Spatial patterns of Canadian venture capital investment. *Regional Studies* 23,1, 9-18
- Makins, M., ed. 1995: *Collins Concise Dictionary* (3<sup>rd</sup> edition). Glasgow: HarpurCollins.
- Malkiel, B. 1996: *A random walk down Wall Street*. New York: Norton.
- Marschall, J. and Bachtler, J. 1984: Spatial perspectives on technological changes in the banking sector of the UK. *Environment and Planning A* 16, 437-450.
- Matkin, J. and Cowper, D. 1994: *Restructuring for the future: towards a fairer venture market*. The report of the VSE and Securities Regulation Commission. Victoria: Crown Publications.
- McDowell, L. 1997: *Capital Culture*. Oxford: Blackwell.
- McDowell, L. 1992: Valid games? A response to Erica Schoenberger. *Professional Geographer* 44 (2), 212-215.

- Mitchelson, R. and Wheeler, J. 1994: The flow of information in a global economy: the role of the American urban system in 1990. *Annals of the Association of American Geographers* 84 (1): 87-107.
- New England Regional Commission 1972: *Venture capital, a guidebook for new enterprises*. Prepared for NERC by the Management Institute, Boston College.
- Nonaka, I and Takeuchi, H. 1995: *Theory of organisational knowledge creation*. Oxford: Oxford University Press
- O'Brien, R. 1992: *Global financial integration: the end of geography*. London: Pinter.
- Ohmae, K. 1995: *The end of the nation-state*. New York: Free Press
- Parsons, W. 1989: *The power of the financial press*. London: Edward Elgar.
- Polanyi, K. 1957: *The great transformation: the political and economic origins of our time*. Boston: Beacon Press.
- Porteous, D. 1995: *The geography of finance: spatial dimensions of intermediary behaviour*. Aldershot: Avebury.
- Pryke, M. and Lee, R. 1995: Place your bets: towards an understanding of globalisation, socio-financial engineering and competition within a financial centre. *Urban Studies* 32.2, 329-344.
- Pulver, G. 1984: Venture capital: a source of business development financing. *Community Economics* 88, January, University of Wisconsin-Extension.
- Reed, H. C. 1981: *The pre-eminence of international financial centres*. New York: Praeger.
- Roberts, H. ed. 1981: *Doing feminist research*. Boston: Routledge and Kegan Paul.

- Roberts, S. 1994: Fictitious capital, fictitious spaces: the geography of offshore financial flows. In S. Corbridge, R. Martin, and N. Thrift, eds., *Money, power and space*. Oxford: Blackwell, 91-115
- Ross, A. 1984: *The Traders: Inside Canada's stock markets*. Toronto: Collins.
- Schoenberger, E. 1991: The corporate interview as a research method in economic geography. *Professional Geographer* 43 (2), 180-189.
- Schoenberger, E. 1992 Self-criticism and self-awareness in research: a reply to Linda McDowell. *Professional Geographer* 44 (2), 215-218.
- Schoenberger, E. 1994: Corporate strategy and corporate strategists: power, identity and knowledge within the firm. *Environment and Planning A* 26, 435-451.
- Schoenberger, E. 1997: *The cultural crisis of the firm* London: Blackwell
- Sharpe, W. and Alexander, G. 1990: *Investments*. (4<sup>th</sup> ed.) Englewood Cliffs, NJ.: Prentice-Hall.
- Smith, R. and Walter, I. 1992: Reconfiguration of global financial markets in the 1990s. In R. O'Brien and Hewin, eds., *Finance and the international economy*. Oxford: Oxford University Press.
- Taylor, P. 1998: "Pennies from hell: the Canadian Dealing Network turns over an astonishing \$12.6b worth of mostly low-priced shares every year. But it's buyer beware." *Canadian Business*. February 27, 69-71.
- ter Hart, H. and Piersma, J. 1990: Direct representation in international financial markets: the case of foreign banks in Amsterdam. *Tijdschrift voor Economische en Sociale Geographie* 81, 82-92.

- Thompson, C. 1989: The geography of venture capital. *Progress in Human Geography* 13, 62-98.
- Thrift, N. 1994: On the social and cultural determinants of international financial centres: The case of the City of London. In S. Corbridge, R. Martin, and N. Thrift eds., *Money, Power and Space* Oxford: Blackwell, 327-355
- Tickell, A. 1996: Making a melodrama out of a crisis: reinterpreting the collapse of Barings Bank. *Environment and Planning D*, 14, 5-33.
- Tickell, A. 2000: *Global rhetorics, national politics: pursuing bank mergers in Canada*. Unpublished paper.
- US Senate (98<sup>th</sup> Congress), 1984: *Fraud and Abuse in the "hot issues" and "penny stock" markets*. Hearing before the Subcommittee on Securities of the Committee on Banking, Housing and Urban Affairs.
- Unger, L. 2000: *Speech by SEC Commissioner: Technology and regulation: the road ahead*. [www.sec.gov/news/speeches/spch343.htm](http://www.sec.gov/news/speeches/spch343.htm).
- Vancouver Stock Exchange, 1990: *VSE Review*. December.
- Vancouver Stock Exchange, 1999: *VSE Review*. November.
- Venture Economics Canada, 1986: *Exiting from venture investments: the Canadian experience*. Association of Canadian venture capital companies, November.
- Walter, I. 1988: *Global competition in financial services: market structure, protection and trade liberalisation*. Cambridge, MA.: American Enterprise Institute/ Ballinger Publishing Co.
- Walters, J. 2000: "Angel investors putting up more than ever, study says," *Vancouver Sun*, April 1, D1, D2.

- Wango, R.J. 1987: *PHP Intersect* (Tokyo), January.
- [www.nasdaq.com](http://www.nasdaq.com)
- [www.sec.gov/news/speeches/spch288.htm](http://www.sec.gov/news/speeches/spch288.htm)
- [www.sec.gov/news/studies/cybexsum.htm](http://www.sec.gov/news/studies/cybexsum.htm)
- [www.sedar.com](http://www.sedar.com)
- [www.ragingbull.com](http://www.ragingbull.com)