

**Australian Venture Capital
Association Limited**

2001 Yearbook

An Analysis of Australian Venture Capital

Prepared by Thomson Financial/Venture Economics

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Multiplying Economic Growth

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Dear Reader,

Global investors discover Australia

As AVCAL celebrates its 10th year, many global investors in venture capital firms have discovered Australia on their radar screens.

Keys to this discovery have been the following:

1. Integrity - both Corporate & Government
2. Transparency - Thomson Financial/Venture Economics benchmark the industry
3. Increasing skill level of managers
4. Critical mass of funds under management
5. IRRs which are very respectable
6. High quality of Australian Intellectual Property
7. World leading entrepreneurship skills
8. Restraint shown by Australian Managers during the tech boom

A highlight of 2001 was the decision by the Australian Government to legislate for the creation of Venture Capital Limited Partnerships, and to provide certain foreign institutional investors, including funds of funds, with exemption from capital gains tax. This is a major breakthrough, and we congratulate the Government for its leadership.

AVCAL's 8th annual conference, staged on Queensland's Gold Coast, was another highlight. The conference attracted a capacity audience of 500 delegates, and featured prominent international speakers including Edoardo Bugnone, Chair of the EVCA, Howard Cox, Chair Designate of the NVCA, Marc Staal, Chair of the Hong Kong VCA, and Adrian Beecroft, past Chair of the British Venture Capital Association.

During 2001, the Australian venture capital industry defied the global downturn and continued to expand. Funds under management increased, disbursements increased, and long term rolling average IRRs increased to 21.7 per cent.

The Australian venture capital industry is built on solid foundations. The future is bright for investors who subscribe capital to Australian funds over the next few years.

We extend our thanks to Jesse Reyes and his team at Thomson Financial/Venture Economics for their efforts, and the consistently high standard of their work.

Yours sincerely,

ANDREW GREEN
Chief Executive

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Milestones in the Australian Venture Capital Industry

1850

Formation of The University of Sydney, followed by formation of major independent universities in each state.

1871

Sydney Stock Exchange formed. First step in creation of national, open financial markets.

1901

Federation of Australia. Creation of a stable democracy, unified economy and independent legal system.

1916

Advisory Council of Science and Industry created, the precursor to today's science and research organisations.

1937

Formation of the Australian Associated Stock Exchanges.

1949

Creation of the CSIRO, the Commonwealth Scientific and Industrial Research Organisation.

1970s

Development of state investment corporations to direct investment into growth sectors.

1970

Formation of the first Australian venture capital fund: International Venture Corporation.

1972

Formation of the second Australian venture capital fund: Enterprise Management of Australia Corporation.

1975

Federal Government reduces international tariffs by 25 per cent, in an endorsement of open international trade and investment.

1984

Federal Government launches Management and Investment Companies (MIC) program, creating new vehicles for risk capital. Over the next seven years, MIC funds raise approximately \$400 million.

1984

Deregulation of the Australian financial sector and floating of the Australian dollar, further embracing market economics over government regulations and fixed currency exchange rates.

1985

Federal Government introduces substantial tax incentives on research and development.

1987

Formation of the national Australian Stock Exchange (ASX), unifying six state stock exchanges.

1990s

Arrival of large corporate investors into the risk capital sector, including Acer and Intel.

1990

First Cooperative Research Centres launched to develop and commercialise research in Australia's universities. In subsequent years, 67 CRCs formed.

1992

Federal Government launches Pooled Development Funds to replace MIC program. In the subsequent six years, PDFs invest \$155 million in 147 companies.

1992

Creation of the Australian Venture Capital Association Limited, AVCAL. In the following year, 17 venture funds manage \$507 million.

1993

Australian Technology Group formed by Federal Government to invest in early stage technology companies.

1997

Innovation Investment Fund program launched to channel \$130 million of government funding into new funds.

1998

Strengthening role for angel investors, with the formation of several angel investor networks.

1998

AVCAL records growth of venture capital sector to 40 funds with \$2.7 billion in funds under management.

1999

Federal Government introduces Commercialising Emerging Technologies (COMET) program to provide \$30 million in funding for individuals and early-stage growth firms to commercialise their work.

1999

Federal Government introduces major capital gains tax reform, roll-over relief, and zero taxation for US and certain other Pension Funds.

1999

The Australian Venture Capital Association and research company Thomson Financial/Venture Economics launch a cooperative effort to prepare regular reports and statistics on the Australian VC sector.

2000

Ten business incubators receive funding from Federal Government under Building on IT Strengths (BITS) program, which will channel \$158 million into technology and telecommunications development.

2000

Forty-two new funds formed. A record \$1.2 billion raised in 12 months to June 30.

2001

Federal Government announces \$2.9 billion innovation action plan to fund new initiatives in education, research and development. Includes \$40 million in funding for the extension of the COMET program and \$78.7 million for a pre-seed fund for universities and public sector research agencies.

2002

Federal government announces that capital gains tax exemption will be extended to certain foreign investors, including funds of funds, that invest in Venture Capital Limited Partnerships.

Australian Nobel Laureates in Science

Six Australian scientists have been awarded the Nobel prize for their research in areas such as chemistry, medicine and physics.

Sir William Lawrence Bragg

Nobel Prize in Physics, 1915, for the analysis of crystal structures by means of X-rays. Shared the award with his father, Sir William Henry Bragg.

Born in Adelaide in 1890, William Lawrence Bragg remains the youngest person ever to win a Nobel Prize. From 1912 to 1914 he worked with his father on the development of X-rays, leading to the publication of *X-rays and Crystal Structure* in 1915.

Sir Howard Walter Florey

Nobel Prize in Physiology or Medicine, 1945, for the discovery of penicillin. Shared the award with Sir Alexander Fleming and Ernst Boris Chain.

Florey, born in Adelaide in 1898, pioneered research into the use of penicillin to treat disease during the late 1930s. His team's report in 1940 described the way penicillin could help to kill sensitive germs in the living body, a breakthrough that was vital in treating wounds during World War II.

Sir Frank Macfarlane Burnet

Nobel Prize in Physiology or Medicine, 1960, for the discovery of acquired immunological tolerance. Shared the award with Peter Brian Medawar.

Burnet pioneered several areas of research ranging from tissue transplants to the identification of viruses and the practice of culturing viruses in living chick embryos. Born in Traralgon, Victoria, in 1899, Burnet researched at the Walter and Eliza Hall Institute from 1923 and remained there throughout his career.

Sir John Carew Eccles

Nobel Prize in Physiology or Medicine, 1963, for discoveries related to nerve cell membrane. Shared the award with Alan Lloyd Hodgkin and Andrew Fielding Huxley.

Eccles led much of the research into synaptic transmission in the central nervous system. By discovering the way electric charges are conducted from one cell to another, he advanced the treatment of nervous diseases and the understanding of the kidney, heart and brain. Eccles was born in Melbourne in 1903. From 1952 to 1966 he was Professor of Physiology at the Australian National University.

John Warcup Cornforth

Nobel Prize in Chemistry, 1975, for his work on the stereochemistry of enzyme-catalysed reactions. Shared the award with Vladimir Prelog.

Deaf for most of his life, Cornforth overcame his disability to conduct leading research in chemistry. After World War II, he researched the way enzymes catalysed change in organic compounds, leading to studies of the structure of steroids and the biosynthesis of cholesterol. Born in Sydney in 1917, Cornforth graduated from Sydney University with first-class honours and a University medal despite being unable to hear lectures.

Peter C. Doherty

Nobel Prize in Physiology or Medicine, 1996, for discoveries on the immune defence of cells. Shared with Rolf M. Zinkernagel.

Doherty helped to discover how an immune system distinguishes virus-infected cells from normal cells, a breakthrough that led to a better understanding of the mechanisms used by the human immune system at the cellular level. This research was begun in the 1970s at the John Curtin School of Medical Research in Canberra. Doherty was appointed to the Wistar Institute in Philadelphia from 1975-82, to the John Curtin School again from 1982-88 and to St Jude Children's Research Hospital in Tennessee in 1988.

Some Australian Firsts in Science and Innovation

1838

Pre-paid postage World first issued by NSW Post Office.

1843

Grain stripper John Ridley & John Bull, South Australia. Strips grain head from stalk and delivers it into a bin for winnowing.

1850

Refrigeration plant Geelong publisher, James Harrison, built world's first mechanical refrigeration plant.

1876

Stump-jump plough Robert Bowyer Smith from South Australia's Mallee country developed a plough that could jump over stumps and stones, instead of being caught and damaged by them.

1882

Stripper harvester Conceived by Hugh Victor McKay from Drummartin, Victoria when just 17 years old. Harvesting machine that can strip, thresh, winnow and bag grain in one continuous operation.

1884

Box kite Sydney aeronautical inventor, Lawrence Hargrave, conducted experimental flights with box kites, pioneering the way for heavier than air flight.

1885

Telephane Henry Sutton, Victoria. Forerunner of the television.

1886

Windmill James Alston built the first all-steel circular windmill as a source of power for lifting underground water to the surface

1889

Electric drill Arthur James Arnot from Melbourne patented the world's first electric drill.

1889

Radial rotary engine Howard Hargrave developed an engine with revolving cylinders attached to propellor blades and powered by compressed air. It played a major part in the development of aviation in Europe.

1897

Differential gears David Shearer, South Australia, built a steam car with a differential inside left rear wheel hub.

1898

Teleprinter Donald Murray, Sydney, invented the teleprinter for recording messages onto a tape.

1903

Froth flotation process Charles Potter and Guillaume Delprat, NSW, developed a process for separating minerals from rock by flotation.

1905

Thrust bearing A.G.M. Michell invented the tilt-pad thrust bearing which revolutionised thrust technology.

1906

Feature film The world's first feature length film, more than one hour long, The Story of the Kelly Gang was made in Australia and screened in Melbourne.

1906

Surf-lifesaving reel Invented by Lyster Ormsby, first Captain of the Bondi Surf Lifesaving Club. First person to be rescued was Charlie Smith in 1907. He later became the famous aviator, Sir Charles Kingsford Smith.

1907

Xerography Professor O.U. Vonwiller at The University of Sydney developed a dry-copy imaging process, the forerunner of Xerox copying.

1910

Hume pipe Walter Hume invented the spun concrete pipe, made using a centrifugal process which expels the water and makes a dense, strong pipe.

1913

Automatic totalisator George Julius invented a system to display odds and automatically calculate dividends for race meetings.

1924

Car radio The first car radio was fitted to an Australian car built by Kellys Motors in New South Wales.

1925

Electric record changing salonola Tasmanian Eric Waterworth invented the stepped centre spindle later used in record changers worldwide.

1925

Pedal wireless Alfred Traeger from Adelaide invented a simple radio transceiver powered by a pedal generator.

1925

Latex gloves Developed by Eric Ansell. His company introduced disposable medical gloves in 1964. Now world's largest producer of latex gloves.

1928

Flying doctor service Dr Kenyon Welsh and pilot, Arthur Affleck began operating the first flying doctor service out of Cloncurry, Queensland.

1930

Letter sorting machine Built by A B Corbett, an engineer with Post Master General's Department in Sydney.

1934

Utility vehicle The utility vehicle, with a front like a car and a rear like a truck was designed by Lewis Brandt at the Ford Motor Company in Geelong, Victoria.

1935

Penicillin Sir Howard Florey grew the mould detected by Fleming, extracted the penicillin drug, refined and tested it.

1946

Castors George Shepherd invented the dome shaped castor with an oil trap to keep the working parts permanently lubricated.

1952

Atomic absorption spectrophotometer Sir Alan Walsh of the CSIRO invented a precision instrument for the high-speed analysis of trace quantities of metallic elements in solids or liquids.

1953

Solar hot water Developed by R N Morse at CSIRO in Victoria.

1956

T-VASIS visual landing system Developed by Aeronautical Research Laboratory, a set of light patterns on either side of the runway shows if the plane is on the correct landing approach.

1958

Black box flight recorder Dr David Warren from Melbourne invented the black box voice and instrument data recorder.

1965

Inflatable aircraft escape slide Jack Grant from Qantas invented the inflatable aircraft escape slide, which doubles as a raft.

1965

Wine cask Angoves in South Australia developed an airless-flow method of packaging wine in a plastic bag. Later fitted with dispensing tap by Wynns in 1969.

1970

Variable ratio rack and pinion steering Australian engineer Arthur Bishop developed variable ratio rack and pinion steering now used extensively in world automobiles.

1971

Interscan Invented by Brian O'Keefe and Dr Paul Wild, the microwave landing guidance system is now the international standard for instrument approach landing.

1979

Bionic Ear Professor Graeme Clark from the University of Melbourne developed the Cochlear implant, a device which restores a measure of hearing to the profoundly deaf.

1980

Wave-piercing catamarans Developed by Phillip Hercus and Robert Clifford of Incat in Tasmania. High speed passenger ferries more efficient and comfortable.

1981

Earth leakage circuit breaker. Developed by Adelaide based Gerard Industries.

1984

Frozen embryo baby The first frozen embryo baby was born at the Queen Victoria Medical Centre in Melbourne.

1984

Continuous self-cleaning micro filtration A group of engineers and scientists led by Dr Doug Ford invented continuous self-cleaning micro filtration.

1985

Gene shears CSIRO scientists, Wayne Gerlach and Jim Haseloff discovered a way of preventing harmful genes in plants and animals from doing their work.

1985

Solar Cells Professor Martin Green breaks the elusive 20% efficiency barrier for silicon solar cells

1988

Polymer bank notes The CSIRO developed the world's first plastic-laminated bank notes, which provide enhanced security and longer life.

1992

Multi-focal contact lens The world's first multi-focal contact lens was invented by optical research scientist, Stephen Newman in Queensland.

1993

Snoring-prevention Res-Med developed a machine that pressurizes the airways, keeping the breathing passage open.

1994

Photonics / fiber optics – Simon Poole developed a technique that enabled engineers to overwrite a number of different fiber gratings with different refraction indices on top of one another, in the same section of fiber. It also enabled the inclusion of WDM functions. His company, Indx, was acquired by JDS Uniphase, and would spearhead Uniphase's drive to bring the all-optical dream into networks around the globe.

1994

Non-invasive TB test The world's first reliable non-invasive TB test that avoids possible adverse reactions was developed by scientists in Victoria.

1999

Kinetic suspension system Reduces pitch and roll while keeping all four wheels on the ground as vehicle traverses rough terrain. Company acquired by Tenneco (Monroe springs & shock absorbers)

1999

Relenza anti-flu drug approved for clinical use. Based on groundbreaking work by Peter Colman, then head of CSIRO Biomolecular Engineering in Melbourne, and Graeme Laver from the Australian National University. Using X-Ray crystallography, Laver and Colman studied in minute detail an enzyme on the surface of the flu virus and worked out a way to disable the enzyme, preventing the flu virus from taking hold in the body. Laver and Colman shared the 1996 Australia Prize for their outstanding scientific work.

2000

CSIRO's wireless local area network system patent (US Patent 5,487,069) is at the core of the IEEE802.11a standard for high-speed wireless local area networks. This patent describes how to overcome multipath effects that arise when transmitting wireless data at high-speed in indoor environments. The patent, and technology to build a radio modem and medium access controller, was licensed to Sydney start up Radiata Communications Pty Ltd, which was sold during 2000 to Cisco for US\$300M.

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A New Era for Australian Venture Capital

Major reforms are reshaping Australia's venture capital industry, removing barriers that have kept international investors out of one of the world's strongest-growing economies.

The outlook for Australian venture capital remains strong as a result of the industry's cautious approach to investments in private companies in recent years.

Most Australian private equity funds managed to avoid the worst of the euphoria surrounding new technologies during the late 1990s. In fact, the excessive optimism on the Australian sharemarket tended to encourage entrepreneurs and companies to seek funding from the public markets rather than from more mature – and more demanding – venture capital investors.

As a result, the worst losses of the era were suffered on the public markets, not in private equity.

Venture capital fund managers mostly emerged from this period with their funds, their returns and their reputations intact.

Now the challenge is for Australian venture capital to identify and support a new generation of successful companies, ranging from young technology startups to substantial buyout opportunities in established industries.

This challenge is all the greater given the volatile outlook for global markets and the lacklustre performance of many of the world's largest economies.

Growth factors

Five factors suggest there are grounds for optimism in Australia.

Australia's strong economic performance. The International Monetary Fund forecast at the end of 2001 that Australia's economic growth would accelerate from 2.4 per cent in 2001 to 3.3 per cent in 2002, at a time when most advanced economies have slowed considerably. Australia continues to enjoy steady growth, low inflation and solid national financial management. The reforms to the nation's tax system during 2000 put the country's finances in a strong position for the future.

Australia's competitive position. The Australian dollar remains relatively low against major currencies such as the US dollar and the Euro. Economic fundamentals encourage export growth, a positive environment for the growth of new export industries and companies that want to expand into global markets.

Ongoing corporate restructuring. Most of Australia's large companies and government enterprises continue to evaluate the best growth options for their businesses, including the option of spinning off some divisions as separate companies. The number of management buyouts (MBOs) has grown and appears likely to continue to grow.

Investment in research. Australia's total public and private expenditure on R&D was around \$9 billion in 1998-99. There is more investment on the way. In early 2000, the Australian Government launched a series of programs worth \$2.9 billion over five years to fund more research, including the formation of two major research centres in the fields of information technology and biotechnology.

Government reforms. The Australian Government continues to encourage the growth of private equity investments in order to fuel new growth across the economy. Specific policies have created new funds, reduced onerous taxation rules, commercialised public sector research and provided new opportunities for investment.

Those who study the Australian economy have found positive signs for investment. In November 2001, the Organisation for Economic Cooperation and Development (OECD) forecast that Australia's gross domestic product would grow 3.2 per cent in 2002 and 4.0 per cent in 2003.

This broader economic growth will be supported by private equity. There is generally more private equity available for investment in Australia than ever before, and there is more investment going into a greater number of Australian companies than ever before.

This was evident at the annual AVCAL conference in October 2001, which enjoyed a record attendance of 500 delegates and a series of speakers from organisations such as the European Private Equity and Venture Capital Association, the US National Venture Capital Association and the Hong Kong Venture Capital Association – cementing the ties between Australian and international investors.

There's no doubt that several hot sectors – especially biotech and information technology – continue to inspire entrepreneurs and attract capital. However, there is also increasing activity in management buyouts (MBOs) where good businesses can be expanded with an infusion of capital.

Success stories

Over the years, Australia's world leading research has become the foundation for many highly successful

companies, some of which now form divisions of global giants. These success stories help to encourage new companies to achieve global growth.

- **Bishop Technology Group.** Bishop technology is incorporated in 20 per cent of all cars manufactured worldwide each year. Founded by Dr Arthur Bishop, the inventor of the variable ratio steering rack, Bishop Technology remains one of the most advanced developers of steering technology, generating annual revenue of \$45 million from 350 patents held in 17 countries. DaimlerChrysler acquired 30 per cent of the company in August 2001.

- **Cochlear.** Based on research in Melbourne in 1967, Cochlear has come to dominate the global market for implantable hearing devices, with three out of four people with cochlear implants receiving Cochlear's system. The company was the first to bring cochlear implants to market. Its sales for the year to June 2001 grew 53 per cent to \$220.1 million.

- **Indx.** This optical networking pioneer was founded by Dr Simon Poole to develop new techniques in the manufacture of photonics equipment. Indx was acquired by JDS Uniphase three years ago and its Sydney facility now forms the core of JDSU's fibre optics product group.

- **Radiata.** Basing its research on work by Australia's main research body, the Commonwealth Science and Industrial Research Organisation (CSIRO), Radiata devised a new way to connect wireless local area networks. The company raised its first private equity from Broadcom and Cisco Systems in 1998 and was acquired by Cisco Systems for \$567 million in late 2000. The company's Sydney office is now one of the cornerstones of Cisco's wireless networking business.

ResMed. Formed in 1989, ResMed expanded existing university research to become a leading developer of medical devices to treat sleep disordered breathing. It is one of Australia's greatest venture capital success stories, generating good returns for its early supporters. It is listed on the New York Stock Exchange and is investing in new research and administrative facilities in Sydney. Its revenue grew from \$US49.2 million in 1997 to \$US155.2 million in the year to June 2001, while its net earnings grew from \$US7.5 million to \$US11.6 million in the same period.

New challenges

Several challenges still face Australian venture capital. One of these is the uncertain outlook for global equity prices and the performance of the Australian Stock Exchange, defining some of the exit possibilities for private equity investments.

Other challenges involve less uncertainty and more political and business reform. Two stand out.

The first is the reform to the tax rules shaping the way private equity funds invest in Australia. In October 2001, the Australian Government announced new tax concessions for investors from outside Australia including endowment funds and venture capital fund-of-funds vehicles, making it more attractive for them to allocate a portion of their funds to Australian venture capital partnerships.

These new tax rules have been hailed as a breakthrough development for Australian private equity. The industry's challenge, though, is to help guide this reform through a complex process during 2002, when Australia's Parliament is expected to pass legislation to put the proposed rules into action.

The second challenge also involves political change – this time to the rules that govern the issue of stock options and other incentives to company employees.

In January 2002, AVCAL launched a campaign to reform the tax laws applying to employee share ownership plans, or ESOPs. The association issued an issues paper outlining a set of reforms that would provide greater rewards for Australians who help drive the success of ambitious and sometimes risky ventures.

The AVCAL paper gained the support of Dr Peter Farrell, the chief executive of ResMed, speaking at an AVCAL function in Sydney in January. Dr Farrell founded ResMed in Sydney in 1989 and has built the company into a leading respiratory medical device manufacturer, giving his comments on the subject of share options an added influence.

"The current taxation treatment of share options makes it very difficult for early stage Australian companies to attract and hold the best and the brightest," Dr Farrell told AVCAL's audience.

"Australia's potential will only be realised if we can attract the right people. The current tax structure on employee share ownership will not help us achieve this.

"It really makes no economic sense to tax share options when they are issued or exercised rather than when they are sold," he said. "We need to introduce a world-best regime for the taxation of employee share options, so that the gain is taxed as a capital gain in the hands of the employee upon the sale of the underlying security, or the sale for a cash consideration of the option."

AVCAL proposes five key changes to the rules governing ESOPs, including the way share options are issued to employees.

1. ESOPs should not be regarded as ordinary remuneration and should therefore be taxed wholly under capital gains tax rules.

2. There should be no taxation before the options or shares are sold. There should be no taxation when share options are granted or exercised, since these events do not deliver any financial reward to the holder of the options.
3. The option holder's net capital gain should be calculated according to the total net actual (or deemed) proceeds at the time of (actual or deemed) disposal, *less* the total costs of exercising the options.
4. Full capital gains tax "rollover" should be provided in circumstances where options are cancelled, exchanged or substituted for other options.
5. The discount CGT concession should be attracted providing the relevant shares (or options) are disposed of more than 12 months after the date the optionholder acquired the original options to which the shares (or options) relate.

These reforms are part of AVCAL's goal of ensuring Australia has a world-best environment for venture capital.

How Australia's New Rules Will Work

International investors are some of the biggest winners from Australia's venture capital reforms.

Australian venture capital is being transformed by a new set of rules that overhaul the way private equity funds operate. The changes are being hailed as a breakthrough with the potential to attract significant investors – particularly international institutions – to Australia's venture capital industry.

Still, investors understand that the devil is in the detail. That is why international investors such as pension funds are investigating the fine print of the Australian reforms.

For those outside Australia, one central reform stands out. The overall thrust of the Australian Government's changes is the introduction of a new structure for Australian funds: the venture capital limited partnership, or VC LP. This change brings Australian venture capital into line with the structures used in most other countries, making it much easier for international investors to know where they stand.

The Australian Government committed to making its new rules applicable from 1 July 2002.

Australia's new VC LP structure should be immediately attractive to many kinds of international investors such as pension funds, funds of funds, foundations and endowment funds.

These entities are now considered to be exempt from capital gains tax on their investments in Australian VC LPs, provided the investors are resident in a designated country. The list of designated countries currently includes the US, the UK, Japan, Germany, France and Canada, though there are plans for this list to be extended.

As well, the changes remove barriers for other investors outside Australia. Any individuals or institutions that invest less than 10 per cent of a VC LP's capital will be treated in the same way as a pension fund – investing without incurring capital gains tax. This includes investors from any country, not only the list of 'designated' countries determined by the Australian Government.

The new approach drew immediate praise when announced by the Australian Government in October 2001.

"These changes will be enormously beneficial to the venture capital market in Australia," said Jesse Reyes, the Vice President of Thomson Financial/Venture Economics, the global venture capital research company.

"We're confident that these international funds of funds and tax-exempt organisations, which had previously been reluctant to invest in Australian private equity because of the unfriendly regulatory regime in place, will look positively upon the changes that bring Australia into line with the US, the UK and other developed countries," he said.

What makes an investor from outside Australia eligible for tax-exempt status? There are three groups under which investors can qualify:

1. Funds or entities that are exempt from tax in their home country, provided that country is on Australia's list of designated countries – the US, the UK, Japan, Germany, France and Canada. This group would include pension funds, foundations and endowments.

2. Funds of funds from one of the designated countries.
3. Foreign investors, whether exempt or taxable, that hold less than ten per cent of the funds in an Australian VC LP.

“The major advantage of the new changes, giving Australian venture capital an LP structure, is that it establishes an internationally recognised investment vehicle that is used throughout the world,” says Mark Goldsmith, a partner in the Australian law firm of Gilbert & Tobin.

“As a result, investors from outside Australia will be familiar with the structure being used, helping to remove a potential barrier to attracting foreign investment into Australian venture capital funds.”

However, there are strict eligibility criteria for Australian funds that want to qualify as LP funds. This, in turn, has implications for international investors that want to ensure they are investing in tax-exempt opportunities.

Some of the details of these reforms are yet to be finalised, though there are now some clear guidelines. To be structured as a VC LP, a fund must:

- Limit its investments to unlisted Australian companies or trusts, or to listed Australian companies in the process of delisting.
- Invest only in companies when the value of the assets of the company is less than \$250 million.
- Not invest in property development, a specified list of finance-related activities, or passive investments that do not involve regular business operations (for instance, where income comes from rent or royalties).
- Limit its investments to businesses that are primarily based in Australia at the time of the initial investment.

- Not invest more than 30 per cent of its committed capital in any single investment.

- Structure its partnership so that no partner – and its associates – owns more than 30 per cent of the VC LP, although there may be certain exclusions to this.

- Structure its fund with an investment time horizon of 5-15 years.

AVCAL and the Australian Government have discussed the importance of a balance between ensuring the integrity of the measures – particularly in preventing tax-avoidance – and the simplicity of the rules, so that the complexity of the tax code does not deter investors.

AVCAL and its advisors are working on specific issues related to the VC LP structure that should benefit international investors. Some of these should also benefit domestic investors.

There are many issues emerging, including the following:

- **A better outlook for pension funds.** AVCAL is working to ensure that domestic superannuation funds investing in venture capital are treated in a similar way to pension funds in other countries.
- **Encouraging investment from a broader range of countries.** The Australian Government has created a list of ‘exempt’ countries for private equity investment. Investors from these countries are to be entitled to the proposed capital gains tax exemptions. These countries are the US, the UK, Japan, Germany, France and Canada. AVCAL believes this list should be extended.
- **Removing limits on venture investments in companies.** AVCAL believes that a VC LP should be entitled to hold assets which, while not

being entitled to the capital gains tax exemption, would not jeopardise the tax flow through treatment applicable to the VC LP. AVCAL has proposed the classification of the assets into two pools to enable this to be achieved. Those eligible for the capital gains tax exemption would form part of an 'eligible exempt pool' and those that are not eligible would form part of an 'ineligible exempt pool'.

- **Enabling funds to invest in shares.** AVCAL believes that there is a need to permit investments made by a VC LP in listed companies in certain circumstances. Examples of situations where a VC LP may hold shares in a listed company could be as a consequence of exiting from an investment in an unlisted company by way of an initial public offering.

The result of all these efforts is that funds have much stronger incentives to invest in Australia. The Australian Government has given a clear commitment to making the climate for private equity investment more favourable.

There will always be new issues that impact international funds that wish to explore opportunities in Australia. AVCAL continues to work on specific changes to Australia's tax and regulatory system in order to encourage new investment.

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A Better Outlook for the Economy

Australia's economy appears set for a \$1 billion investment boost from the latest reforms.

The reforms to venture capital in Australia appear set to boost not only the private equity industry but the Australian economy in general.

One study suggests the new reforms will help attract an additional \$1 billion in foreign investment into Australia's venture capital funds.

This study was completed in late 2001 by Econtech, one of Australia's leading independent economic consultancies and a specialist in economic modelling, tax consultancy, policy and forecasting.

Econtech believes that the venture capital reforms will greatly benefit the Australian economy, adding \$350 million to Australia's annual gross domestic product (GDP), including the addition of \$120 million to net exports each year.

"By increasing the pool of venture capital available in Australia, this change will help to start young companies, revitalise existing companies and create new jobs," said Peter Chapman, the chairman of the AVCAL Public Policy Committee and the chief executive of Rothschild Australia Capital Investors Limited.

Econtech used a Venture Capital Model (VCM) to prepare an analysis of the effects of the new reforms. The VCM makes widely-used, long-run assumptions of economic modelling that predicts outcomes that are sustainable.

Analysis derived from this model suggests that the changes will expand the Australian economy in the following ways:

- **Attract fresh capital.** With the removal of the capital gains tax, the cost of capital in venture capital investments will be reduced, and foreign investors will be more likely to invest in Australia. An increase in foreign venture capital investment in Australia will see figures double from \$1 billion to between \$1.7 billion and \$2.1 billion, reports Econtech.
- **Increase capital stock.** Econtech estimates that the stock of venture capital will increase by about 17 per cent or \$0.9 billion. This addition will come from the foreign-owned portion, estimated to nearly double from \$1.0 billion to about \$1.9 billion.
- **Increase GDP.** Because venture capital is used to expand companies, the changes will add \$350 million to Australia's GDP, according to the Econtech analysis. Consumption will increase by about \$40 million, investment by \$190 million (in line with the gain in capital stock) and net exports by \$120 million. A study by Coopers & Lybrand in 1997 found companies backed by venture capital reported a 42 per cent growth in sales and a 59 per cent growth in profits, compared to 6 per cent growth in sales and 7 per cent growth in profits for top 100 companies.
- **Generate industry benefits.** The Econtech analysis found that increased foreign venture capital investment is likely to have beneficial effects across a range of industries. According to data supplied by the ABS, the industries that presently attract the largest venture capital

investment are manufacturing, property and business services and communication services, and to a smaller extent, the wholesale and retail trade. It follows that these industries will especially benefit from increased foreign venture capital investment in Australia.

With increased venture capital investment in Australia, there will be several flow-on benefits for the economy. A rise in capital investment will:

- **Create jobs.** Venture capital fuels some of the strongest job creation in Australia. Companies backed by venture capital achieved 20 per cent annual growth in staff numbers between 1992 and 1996, compared to 2 per cent annual growth at Australia's top 100 companies, according to a study by Coopers & Lybrand in 1997. This is due in part to expanding businesses needing an ever-increasing number of employees to support their growth.
- **Increase Australia's skill base.** Venture capitalists assume a mentoring role, providing management advice and business skills that ensure efficient use and allocation of capital to increase success rates in their investees.
- **Encourage innovation.** In parallel with other Federal Government programs, the expansion of venture capital will make new funds available to commercialise research and development now underway at universities and research institutes. Scientists and new technology developers, deemed 'too risky' by conventional investors, are increasingly targeted by venture capitalists attracted to their innovations.

As a result of these efforts, Econtech argues that the new venture capital limited partnership structure will have wide-ranging positive impacts for the venture capital industry in Australia and for the general economy.

The reforms are expected to nearly double the level of overseas investment and generate benefits across multiple industries. Higher employment levels, an expanded skill base and increased innovation will all benefit Australia's living standards in the long term.

Building up Biotech

An earlier generation of industry pioneers has cleared the way for Australia's emerging biotech leaders.

Australia's life sciences industry is investing heavily in new companies and new technologies that will produce commercial products in areas as diverse as agriculture and medicine.

The country's biotech research capabilities are strong and new companies are forming quickly. Venture capital is being directed into the industry at a greater rate. As well, Australian life sciences companies are expanding into global markets and forming key international alliances.

Some of the industry's pioneers have helped to clear the way for the industry as a whole.

CSL, the former government serum laboratory, is now a global blood products group. ResMed led the development of medical devices to treat sleep deprivation and now dominates the global market for these devices. Cochlear is the world's leading bionic ear manufacturer and has more than 60 per cent of the global hearing aid market. Axon Instruments develops devices and software used in drug research. Biota created Relenza, an influenza treatment sold internationally by GlaxoSmithKline, and is working on new drugs based on Australian biotech research.

More importantly for Australia's venture capital sector, there are significant partnerships underway between relatively young Australian biotech companies and their international allies. If these alliances succeed, a new generation of biotech startups will join the ranks of Australian venture capital success stories.

Proteome Systems, for instance, works with Dow AgroSciences on the impact of proteomics on agri-

cultural biotechnology and with Shimadzu Corporation on the development of new scientific instruments. Peptech has licence agreements with Knoll AG and Centocor for technology that neutralises a key protein that contributes to rheumatoid arthritis.

Alchemia has an alliance with Dow Chemical to research the synthesis of carbohydrates.

Other companies are choosing to expand in a different way. Bresagen has grown through acquisition after the purchase of CytoGenesis, a US company that specialises in stem cell and imaging technology. CSL raised \$356 million from Australian investors to acquire Rotkreuzstiftung Zentrallaboratorium Blutspendedienst, a foundation of the Swiss Red Cross.

With these kinds of alliances being formed, the biotech sector is confident of its prospects. Australia's biotech industry has expanded steadily in recent years to achieve \$1.1 billion in collective revenue in 1999-2000, according to a survey of public companies in the *Australian Biotechnology Report* released by the Federal Government in June 2001.

Australia has 35 core biotech and 25 biotech-related companies on the Australian Stock Exchange, according to the *Australian Biotechnology Report*.

Most venture capital opportunities are emerging elsewhere, though. As a result of the commercialisation of institutional research and the creation of new startups, the biotech industry now has a total of 190 core biotech companies (an increase of 70 over two years) and 460 biotech-related companies.

Australian capital is increasingly being used to get local companies ready for international markets.

Alchemia, for instance, raised funds from Start-up Australia, Medica Holdings, AMWIN, BioTech Capital Limited and Rothschild Bioscience to fund the company's development of carbohydrate compounds that can be used for drug discovery, drug delivery and custom synthesis of carbohydrates.

Proteome Systems raised funds from BioTech Capital Limited, the Queensland Investment Corporation and individual investors to expand its research into proteomics and build on its alliances with Dow AgroSciences and Shimadzu.

Another company making remarkable progress is Q-Vis Limited, a listed company that was spun out of the Lions Eye Institute in Perth, Western Australia. Q-Vis Limited is the global leader in the development of solid state laser vision correction (LVC) technology. The company's primary activities are its US clinical and FDA regulatory program for its Q-Vis Quantum 213nm solid state refractive laser.

The Lions Eye Institute is a world-class research facility, with 120 scientists and support staff, under the direction of the highly acclaimed ophthalmologist, Professor Ian Constable. Research is carried out in areas

including gene therapy and molecular investigations into aged related macular degeneration and retinal diseases, the development of the artificial cornea and orbital implant and development of refractive lasers for myopia.

A second more recent spin-out from the Lions Eye Institute is Argus Biomedical Pty Ltd, which is currently completing the requirements for the regulatory approvals of AlphaCor™, the world's first soft one-piece artificial cornea, and AlphaSphere™, a soft bio-integrable orbital implant.

State governments are directing resources into this area in order to encourage the rise of new companies.

Illustrating this trend is the \$157 million national synchrotron facility being developed at Monash University in Victoria, which is being funded with up to \$100 million from the Victorian Government.

Another is a Biotechnology Centre of Excellence to produce leading innovation in life sciences – an Australian Government initiative which has encouraged research institutes, universities and state governments to bid to host the centre.

The result for Australia's venture capital sector is an increase in new opportunities – and the prospects of positive returns.

Technology Leadership

Recent achievements signal the bright prospects for Australia's information technology and telecommunications sectors.

Australian researchers have produced leading work in fields like quantum computing, software engineering, wireless networking, photonics, network management, global positioning systems, and mobile telephony.

In some cases, the research has been the work of Australian facilities operated by global giants like Alcatel, Ericsson, Fujitsu, Lucent and Nortel. Yet some of the biggest breakthroughs have also come from Australian startups.

One of the best examples is Radiata, a company that was acquired by Cisco Systems for \$567 million in late 2000. Radiata developed a breakthrough 'wireless engine' capable of sending data at 54 megabits per second, a big advance in the implementation of the 802.11a wireless standard. Some of the core elements of this work came from the Commonwealth Science and Industrial Research Organisation (CSIRO).

Australian companies like Aurema, Cap-XX, NetMap Analytics, Open Software Associates, Platypus Technology, QPSX, Redfern Photonics, and Sigtec continue to work on advanced research.

Strong research

The foundation for many of these companies is Australia's heritage of leading research.

Australia's total public and private expenditure on R&D was approximately \$9 billion in 1998-99. In the 1999 fiscal year, information and communications technology was the largest single area of R&D investment by

Australia's private sector, accounting for 35 per cent of all business R&D.

This investment is being expanded under Federal Government programs, including the *Backing Australia's Ability* initiative to invest \$2.9 billion over five years to fund more research. One of these projects is a new Information and Communications Technology Centre of Excellence to bring together private and public sector research.

One advantage for these research undertakings is Australia's rapid adoption of new technology. Australia's consumption of information and communication technologies is the second highest in the world as a proportion of GDP (behind Sweden and ahead of the US) according to the International Monetary Fund.

In addition, approximately one quarter of labour productivity gains in Australia in the 1990s can be traced to the use of information and communication technologies, according to studies by the ANZ Bank and Australia's Reserve Bank.

Companies like Computershare, ERG, Integrated Research, Mincom, Moldflow, Prophecy International, and Tower Technology have all conquered markets in Europe, Asia, and the Americas.

Private equity investors are now searching for the likely successors to that earlier generation of startups.

Groups such as ABN AMRO, Advent International, Citicorp Equity Capital, Deutsche Bank, GE Equity, Intel Capital, JP Morgan, Rothschild, Tallwood Ven-

ture Capital, Telecom Venture Group, Temasek Holdings and UBS Capital are investing in Australian startups.

Most of these global funds and institutions have formed significant local operations. They also invest alongside Australian venture capital funds.

Some of the most recent investments in Australia confirm the steady increase in activity and success.

- Astracon raised \$50 million from Cisco Systems, Geocapital Partners, Cross Atlantic Capital Partners, Telecordia Technologies and the Australasian Media & Communications Fund to further develop its telecommunications management software in the US market.
- Cap-XX, a developer of supercapacitor technology, raised \$34 million in September 2001 from ABN AMRO, Walden International, Acer Technology Ventures, Innovation Capital, Intel Capital, and Technology Venture Partners.
- Cards Etc raised \$16 million from Citigroup, First Data Corporation and Monetti for its software to personalise smart cards.
- NetMap Analytics raised \$20 million from Insurance Services Office in the US to help relocate the company, which develops software to analyse financial transactions, to the US.
- Platypus Technology raised \$14 million from the Carlyle Group and JAFCO Investment to develop a solid-state memory 'drive' and open a US office in New Hampshire.

Redfern Broadband Networks raised \$28 million from Optical Capital Group, Chase H&Q, Allen & Buckridge and Macquarie Bank to develop dense wave division multiplexing (DWDM) technology that promises multi-gigabit speeds for metropolitan area networks.

Redfern Polymer Optics raised \$8 million in seed funding from Redfern Photonics and others to commercialise its polymer planar and fibre components and polymer optical fibres.

Sigtec raised \$7.5 million from Nanyang Ventures and Endeavour Capital to develop taxi communications systems and a tiny GPS receiver that could be used to pinpoint the location of mobile phone users.

Many initiatives are now focusing Australia's efforts on the creation of more companies – and investment opportunities – such as these. The Australian Government's efforts, in particular, include the *Innovation Investment Fund* program to foster new venture capital partnerships, the Building on IT Strengths (BITS) program of technology incubators and a more recent program to start a cluster of seed capital funds.

Another important part of *Backing Australia's Ability* is the Federation Fellowship program, which grants 15 annual fellowships valued at \$225,000 each year for five years. During 2001, eight of the winners chose to relocate their research activities to Australia. With so many expatriate Australian scientists keen to return home, these research scholarships could help breed a new generation of technology leaders.

Australian Venture Capital in 2001: A Perspective

The Australian venture capital industry expanded rapidly during 2001 to end the year in a stronger position than ever. The industry's growth was clearly demonstrated on two main counts: the continued rise in investment in new Australian opportunities and the ability to raise fresh capital from professional investors.

As a result, Australian venture capital funds had more capital under management than ever before. They also invested more heavily than ever in Australian companies.

The industry's investments in companies – also known as disbursements – rose a remarkable 168.6 per cent to \$2.2 billion in the year to June 30, 2001. This was the highest level on record for the Australian industry. Furthermore, it represented impressive growth at a time when venture capital industries in many countries contracted quite considerably.

Australian venture capital funds invested in 245 companies during the year – 69 per cent more companies than in the previous year. This was also a higher level of activity than in any other year and a sign that venture capital in Australia filled a gap in Australian industry by supporting innovative companies.

Companies receiving funding

While overall investment activity grew, there were signs of a shift in emphasis by venture capital managers.

Venture capital funds supported a greater number of companies at a later stage of their development, marking a change on previous years when funds appeared to direct more of their investments to companies at an early stage of development – such as seed stage or startup stage. More than half the investments during 2001 went to companies in their expansion stage.

Another notable trend was the continued emphasis on industry sectors such as high technology – notable because of the mixed fortunes of many Australian technology companies during the period and the volatility of these industry sectors on public sharemarkets around the world.

Australian venture capital funds continued to direct a substantial proportion of their funds to areas of innovation in industries such as computing, communications, biotech and health. This included an increase in funding for companies in the Internet sector – perhaps the most downtrodden of all technology industries in recent times.

Fund growth

While Australian venture capital funds invested more funds in more companies, they also experienced strong growth in terms of their own capital requirements.

Australian venture capital funds raised \$1.4 billion from investors in the year to June 2001, an 18.5 per cent rise on the capital they raised in the previous year. This capital came from sources such as pension funds, corporations, government, banks, insurance companies, funds of funds, public market vehicles, families and individuals.

A substantial proportion, of course, came from Australian superannuation funds – the funds that are responsible for managing the retirement savings of Australian workers. This is particularly important given that superannuation fund managers still only direct a very small proportion of their overall funds towards private equity.

Even a small rise in the percentage of superannuation directed to venture capital could have a significant im-

pact on the total volume of venture capital in Australia – an important point given the ongoing discussion in Australia on the overall regulatory climate necessary to encourage private equity investment.

New funds

Australia's venture capital industry saw the addition of 23 venture capital funds during the year. Of these, eight were follow-on funds while 15 funds were new funds.

On average, these new funds represent some of the largest in Australia – an unusual result given that new funds are often smaller than their more established peers. With an average size of \$149 million, funds established during the year to June 2001 are the second largest in the industry.

Of all the new funds established during the year, some of the most notable were the funds of funds created to pool the private equity investments of multiple sources. Given that there were ten funds of funds established in the past four years, these funds have clearly emerged as influential investors in the Australian industry.

Types of funds and investments

There are ten kinds of funds described in this report. More information about terms and definitions can be found in the Glossary. Here is a brief overview of the kinds of funds described:

Balanced funds. These use an investment strategy that includes venture capital investing in portfolio companies at a variety of stages of development. It also includes funds with no particular stated investment strategy, but would not include leveraged buyout (LBO) financing.

Early stage funds. These focus on investing in companies that are generally starting their existence. Proceeds are used to develop products. Marketing ef-

forts are initiated. Revenues exist, but since this is a capital-intensive stage, profits are minimal if they exist at all.

Expansion stage funds. These provide capital to companies that have developed products or concepts and have developed a customer base. Revenues are growing at an increasing rate, though profits may not exist since expenses are still high.

Funds of funds. These invest primarily in other venture capital funds rather than directly in portfolio companies.

Later stage funds. These provide finance for the growth of a company that has moved beyond the expansion stage to increase its sales volume and generate consistent growth. This is considered the last venture capital stage of financing prior to a liquidity event (i.e. an IPO or acquisition of the company).

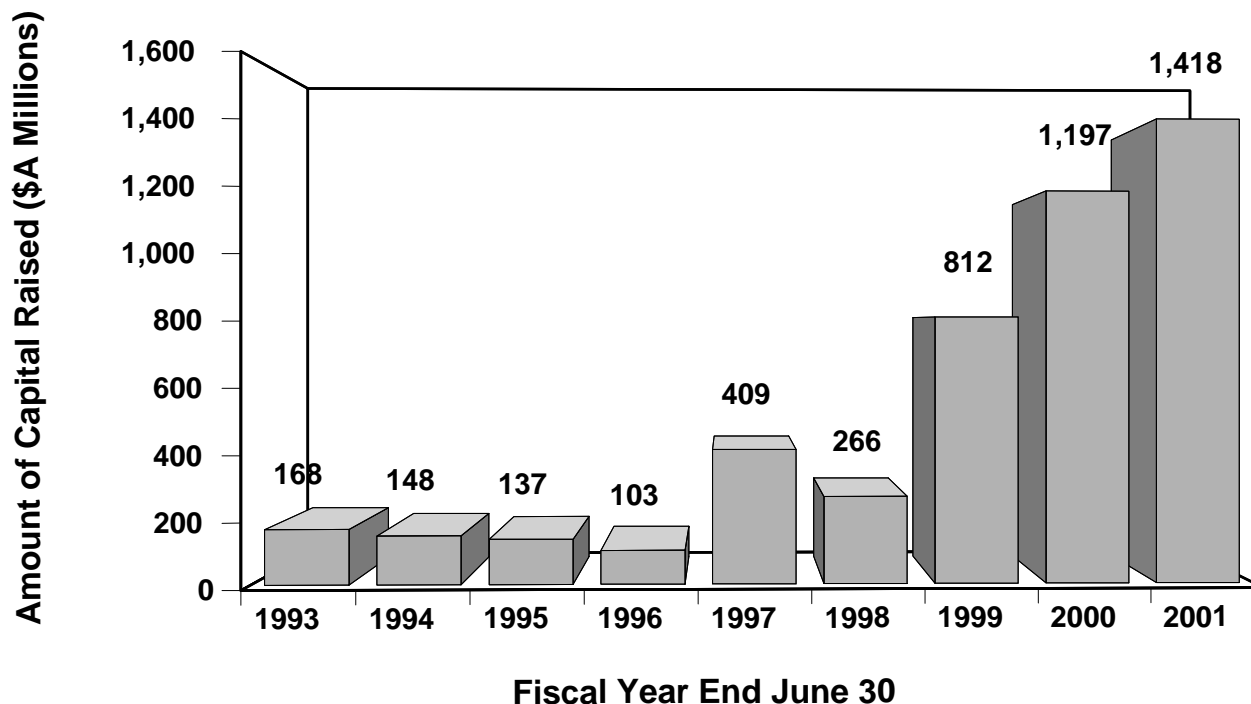
LBO funds. Leveraged buyout funds focus on providing the capital to acquire mature companies, often with the support of that company's existing management team. These types of transactions usually have a higher ratio of debt financing as part of the acquisition price.

Mezzanine funds. These use an investment strategy involving subordinated debt (the level of financing senior to equity and below senior debt). Thomson Financial/Venture Economics considers this a buyout form of financing along with LBO financing.

Seed stage funds. These invest at the earliest phase of a company's development to develop a business concept before a company is started. Capital invested in companies at this point is used to get the company ready to commence operations. Because it's the earliest stage of development, it is considered the riskiest of the various financing stages.

Turnaround funds. These identify and support companies that require fresh capital and new growth strategies in order to recover from faltering operations.

Amount of Venture Capital Raised by Year



Amount of Venture Capital Raised by Year

For several years during the 1990s, Australian venture capital funds experienced a gradual decline in the amount of capital they raised each year. Apart from a sudden rise in capital raising in 1997, the industry's growth only took off in earnest from 1999 onwards. This growth continued into 2001.

Australian venture capital funds raised \$1.4 billion from investors in the year to June 30, 2001, representing an 18.5 per cent increase on the amount of capital raised in the previous year. While venture capital sectors in other countries experienced a fall in the amount of new capital available, Australian funds were able to gain new ground during the period.

Certainly, the enormous rate of growth of the past few years has slowed. Venture capital funds increased the capital they raised in 1999 by 205.3 per cent to \$812 million compared to the previous year. The following year, they raised \$1.2 billion – an increase of 47.4 per cent. The year to June 2001 showed modest growth at a time when growth was far more challenging than before.

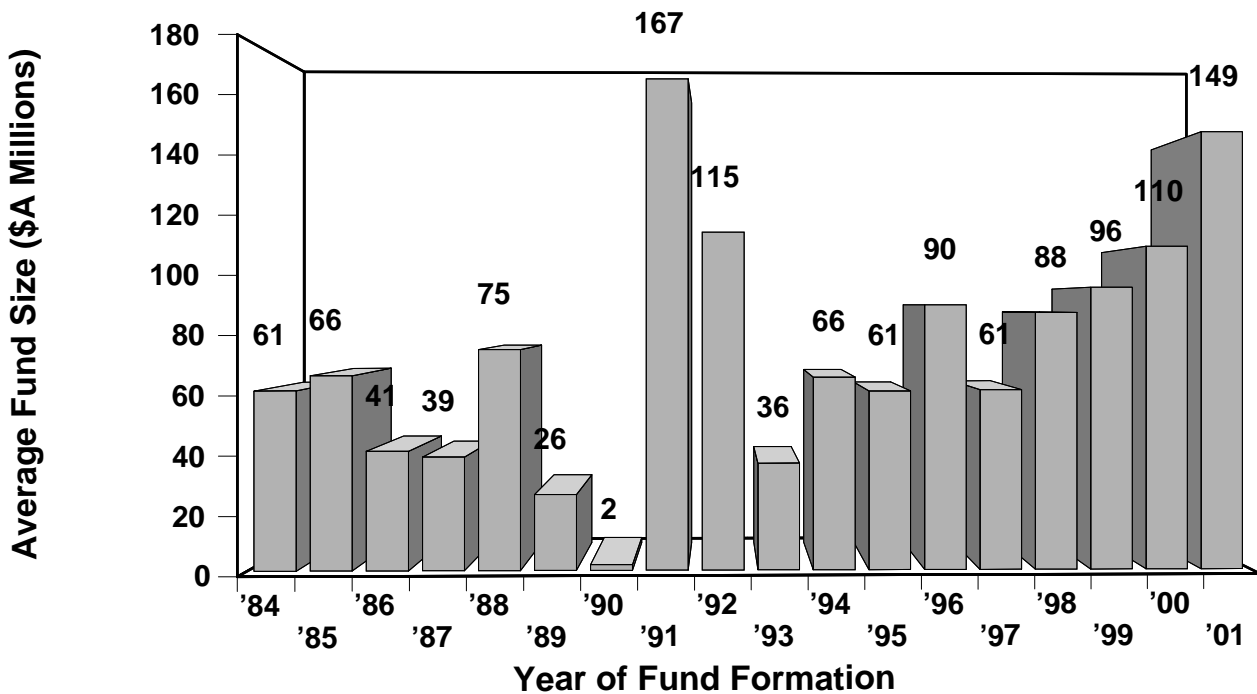
Average Fund Size During 2001 (\$A Millions)

Stage	Avg Fund Size
Balanced	65.4
Early Stage	81.6
Expansion	51.0
Fund of Funds	165.1
LBO	253.2
Later Stage	92.7
Mezzanine	14.7
Generalist	51.7
Seed	25.4
Turnaround	7.0

Average Fund Size During 2001

Two venture capital categories stand out in Australia for the substantial amounts of capital they raise. One is the fund of funds category, in which Australian funds had an average size of \$165.1 million – several times the average size of most other Australian funds. The other is the leveraged buyout, or LBO category, an area of strong growth in the past two years. In this category, funds had an average size of \$253.2 million – the highest average in Australia’s venture capital sector.

Average Fund Size by Year of Fund Formation



Average Fund Size By Year of Fund Formation

Some of Australia's older funds continue to rank as the largest in the industry in terms of average size. Funds raised in 1991 had an average size of \$167 million at June 30, 2001.

Most funds raised in recent years remain well below the level of the 1991 funds. Funds established during the last few years of the 1990s, when there was a sharp rise in fund formation, range in size from \$61 million to \$96 million on average.

The 2001 year stands out for the size of its funds. With an average size of \$149 million, funds established during the year to June 2001, are the second largest in the industry. This is remarkable given that they are the youngest funds in the industry. In many countries in recent times, newer funds have tended to be smaller than their peers as a result of the several years that it usually takes for a fund to build up its capital base.

Number of Funds by Stage by Year of Fund Formation

Year	Seed	Early Stage	Expansion	Later	Balanced	LBO	Mezzanine	Turnaround	Generalist	Fund of Funds
1984				1	1					
1985					1					
1986				1						
1987				1						
1988				2						
1989	1			1	1					
1990						1				
1991										1
1992				1						
1993				2		1				
1994	2			2	1					
1995	1		1	1	1					
1996			1	4	2	1				
1997		2	1	2	2	2			1	
1998	4	1		6	2					2
1999	3	4	1	5	4	3			1	1
2000	4	10	5	2	7	2		2	2	1
2001	2	5	4	2	5	1	1			3

Number of Funds by Stage by Year of Fund Formation

The level of activity fell during the year in some fund categories. Venture capital funds that focus on investments in early stage companies, for instance, saw much less activity compared to the previous year. There were 10 new early stage funds established during 2000 but only five established during 2001.

There were also fewer balanced funds established, with five of them formed during 2001 compared to seven in the previous year. These funds are more difficult to categorise in terms of the types of companies they invest in, since they invest in companies at various stages of development.

The most significant increase in activity during the year was the rise of three new funds of funds, expanding a relatively new category in Australian venture capital. Although Australia saw the formation of a fund of funds in 1991, there were no funds of this kind created during much of the 1990s. That changed in 1998 when two funds of funds were established, followed by one in 1999 and another one in 2000.

With the formation of three new funds of funds, this category of venture capital has undergone rapid growth. The number of funds in this area doubled in the space of two years.

Average Size of Funds by Stage by Year of Fund Formation (in \$A Millions)

Year	Seed	Early Stage	Expansion	Later	Balanced	LBO	Mezzanine	Turnaround	Generalist	Fund of Funds
1984				38.4	83.6					
1985					66.2					
1986				40.5						
1987				38.6						
1988				75.0						
1989	19.2			3.9	54.3					
1990						2.0				
1991										167.1
1992				115.0						
1993				46.6		15.9				
1994	23.5			119.9	35.1					
1995	14.7		60.7	161.8	6.5					
1996			22.3	127.8	35.4	72.7				
1997		60.5	21.7	97.8	43.7	74.2			64.3	
1998	35.5	41.9		80.8	212.7					129.4
1999	18.6	30.5	16.8	147.3	6.3	210.9			29.0	269.9
2000	24.9	117.9	74.5	83.2	60.9	666.0		7.0	56.8	
2001	39.6	70.7	26.8		11.5		14.7			

Average Size of Funds by Stage by Year

Australia's venture capital industry experienced some growth during 2001 in the average size of some of its funds, though in some categories the average size declined.

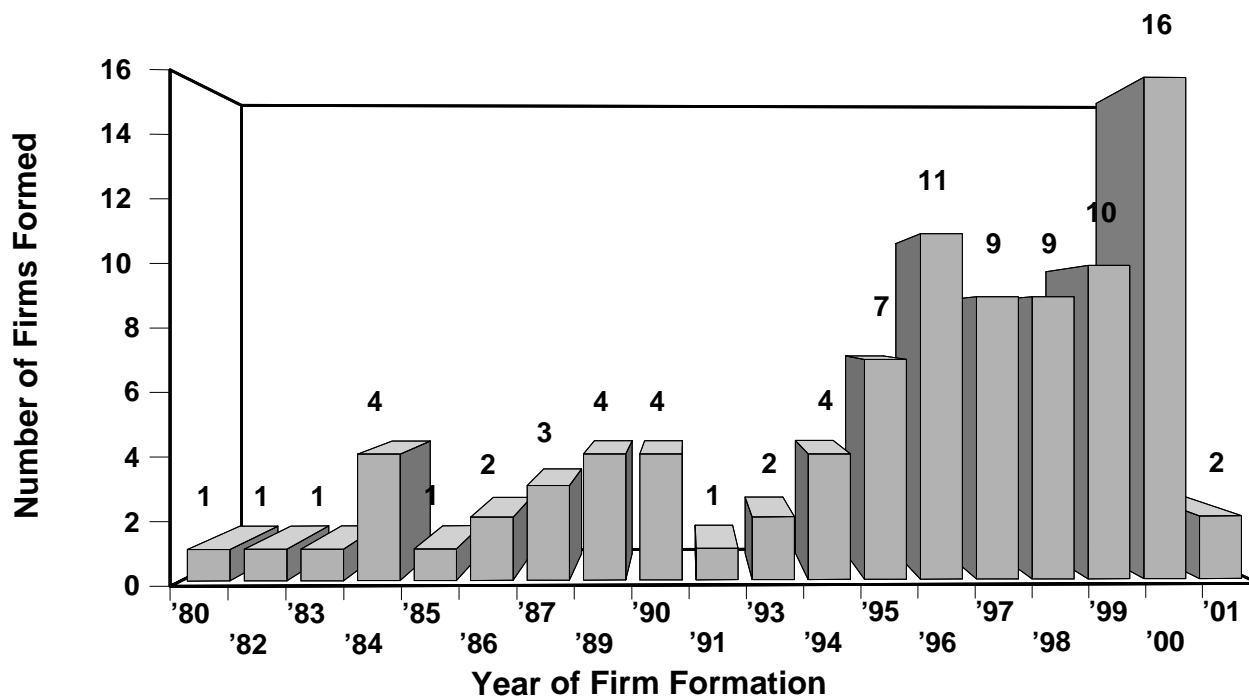
Although there were fewer seed stage funds established in 2001 than in the previous year, these funds were much larger on average. The average size of Australia's seed funds established in 2001 was \$39.6 million, compared to an average size of \$24.9 million for seed funds formed in the prior year.

The trend was quite different among early stage funds. Those early stage funds established during 2000 had an average size of \$117.9 million at June 30, 2001. Those formed during 2001 had an average size of \$70.7 million – nonetheless larger than early stage funds established in 1997, 1998 or 1999.

In general, younger funds tend to have smaller average sizes than their more mature peers.

Data was not available on the average fund size in some categories, such as the fund of funds category.

Number of Firms Formed by Year



Number of Firms Formed by Year

After a substantial jump in the formation of venture capital management firms in 2000, the industry saw a much lower level of activity during 2001. There were two firms established in the year to June 2001, bringing the industry back to the kind of growth in management firms that it last experienced in the early 1990s.

There are few detailed conclusions to be drawn from a comparison of the number of management firms established and the number of new funds formed in any year. Australia has experienced a slowdown in the addition of both new firms and new funds during 2001, down from record levels in 2000. There is not necessarily any relationship between the new firms and new funds created in any year, since the formation of a new fund does not require the formation of a new management firm.

Sources of Capital Under Management as of 30 June, 2001 (in \$A Millions)

LP Type	Capital Committed
Superannuation	2,245.4
Others	885.9
Principal	874.3
Corporations (Non-Pension)	747.0
Public/Government Pension Fund	500.2
Banks	394.2
Fund of Funds	223.0
Share Markets	187.2
Government	182.5
Families & Individuals	74.4
Insurance Co	5.2

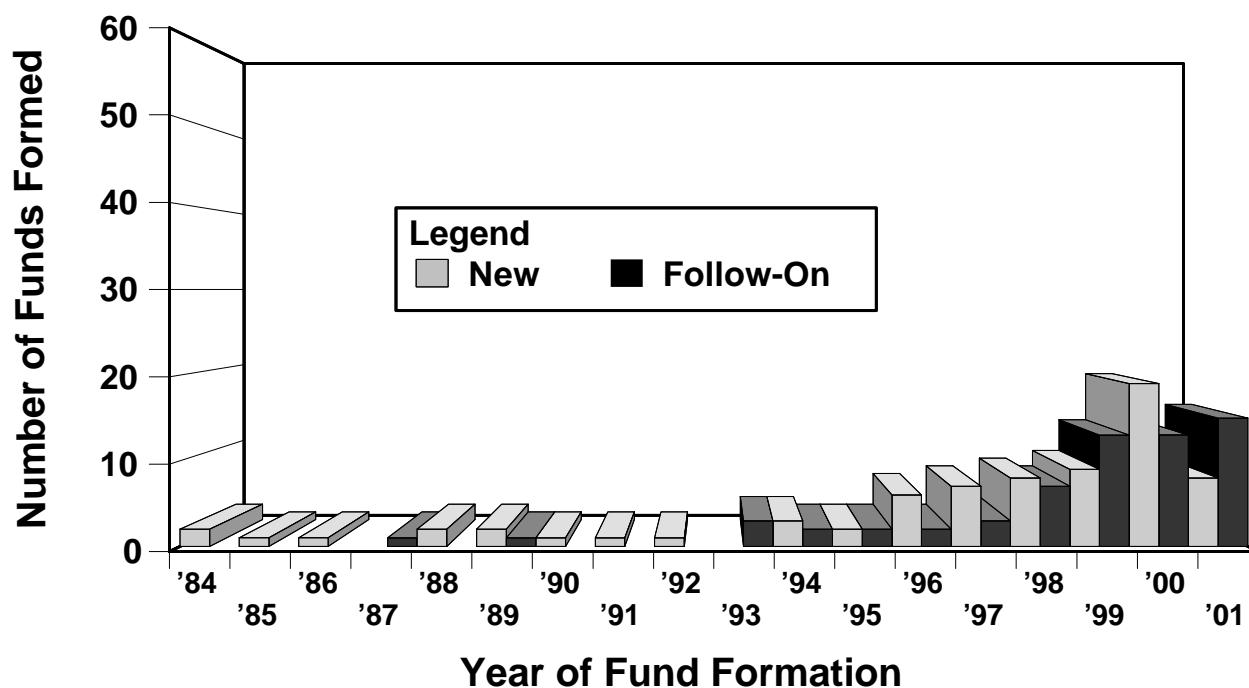
Sources of Capital Under Management as of 30 June 2001

More than one third of the venture capital under management in Australia was sourced from superannuation funds, with no other source of capital making such a large contribution to the industry. At June 30, 2001, the industry's total capital under management was \$6.3 billion.

The dominance of the superannuation sector is particularly notable given the discussion of reforms that could make venture capital a more attractive form of investment for superannuation fund managers. Research by AVCAL has concluded in the past that total superannuation entity assets held in the form of Australian private equity comprise only 0.87 per cent of the total superannuation fund assets – a very low figure by international standards. In the United States, for instance, private equity accounted for 5.6 per cent of total pension fund assets in 1999.

Given the data in this table, it is clear that even a small rise in the percentage of superannuation directed to venture capital could have a significant impact on venture capital in Australia. This underlines the significance of Australia's reforms to the way domestic superannuation funds and all kinds of international investors can invest in Australian venture capital limited partnerships.

Number of Funds by Sequence by Year of Fund Formation



Year	New	Follow-On
1984	2	
1985	1	
1986	1	
1987		1
1988	2	
1989	2	1
1990	1	
1991	1	
1992	1	
1993		3
1994	3	2
1995	2	2
1996	6	2
1997	7	3
1998	8	7
1999	9	13
2000	19	17
2001	8	15

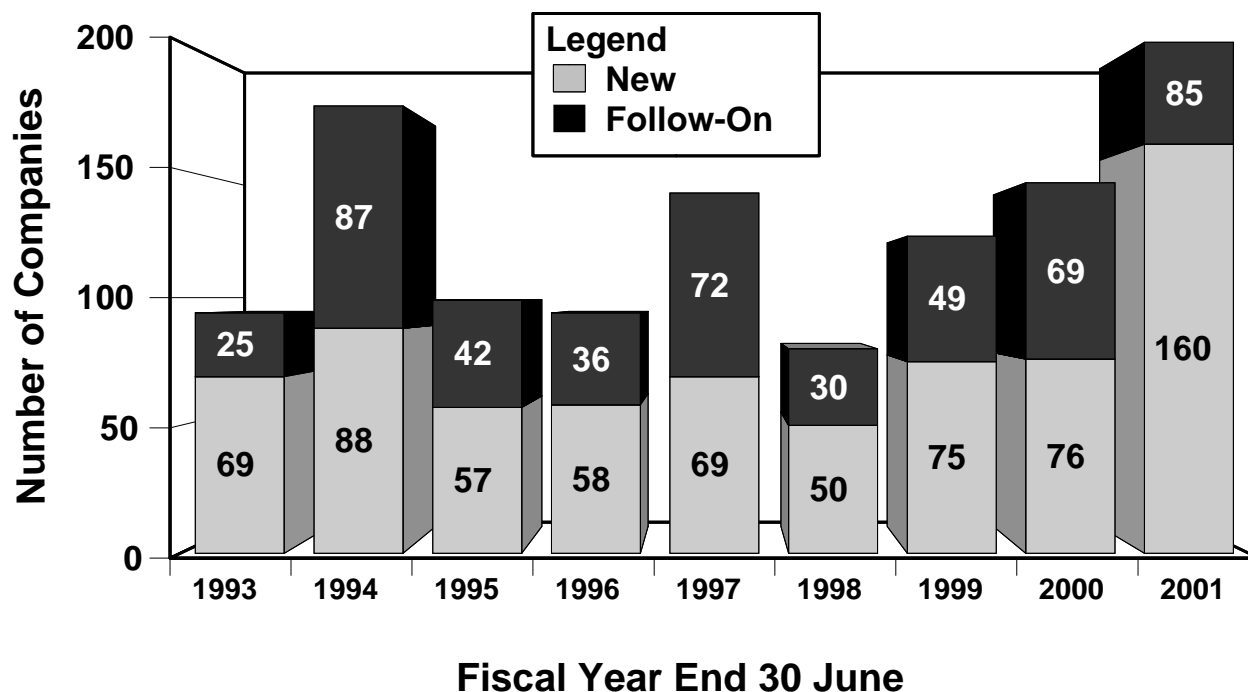
Number of Funds by Sequence by Year of Fund Formation

There were 23 venture capital funds established in the year to June 2001. Of these, 15 were follow-on funds established to continue the strategies already set by existing Australian funds. The remaining eight funds were new funds created to implement new investment strategies.

In previous years, the number of new funds has usually exceeded follow-on funds. In 2000, there were 19 new funds and only 17 follow-on funds established.

The number of follow-on funds reached a record high in 2000.

Number of Companies Invested in by Year

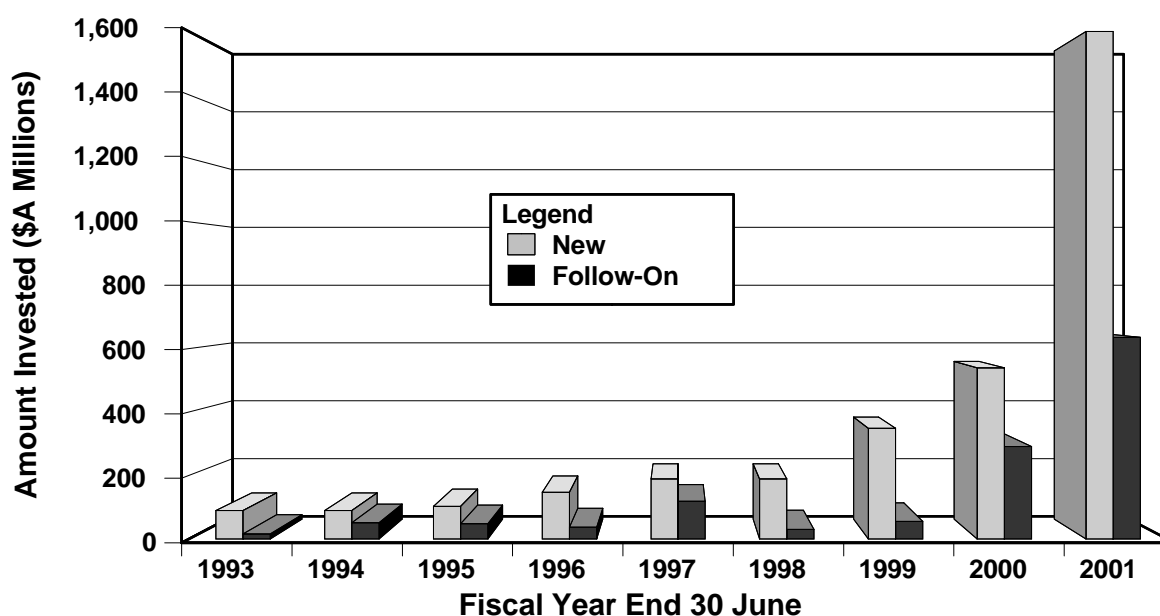


Number of Companies Invested in by Year

Australian venture capital funds invested in 245 companies during the year, surpassing the record high of 175 companies invested in during 1994. The growth of the Australian venture capital sector over the past few years is clearly visible in the chart showing the number of companies receiving investments – also known as disbursements – from venture capital funds.

The number of companies backed by venture capital rose 69.0 per cent from 2000 to 2001, an acceleration of the growth seen in recent times. The number of companies raising venture capital rose by 55.0 per cent to 124 in 1999 and rose again by 16.9 per cent to 145 companies in 2000. After a fall in activity in 1998, the Australian venture capital industry grew strongly in recent years in terms of the number of companies it has supported.

Amount of Venture Capital Invested by Year



Fiscal Year	New	Follow-On
1993	90	16
1994	90	52
1995	103	49
1996	148	38
1997	190	119
1998	190	31
1999	349	56
2000	540	292
2001	1,600	635

Amount of Venture Capital Invested by Year

Investment surged in 2001 as venture capital funds poured a record amount of capital into Australian opportunities. The amount of venture capital invested by funds reached \$2.2 billion, a 168.6 per cent rise on the \$832 million invested in 2000.

The past year exceeded the growth rates seen in the past. The amount of venture capital invested rose 83.3 per cent to \$405 million in 1999 and rose a further 105.4 per cent to \$832 million in 2000. Over the past

few years, the Australian venture capital industry has not only grown strongly but it has accelerated its rate of growth by a significant degree.

As with the number of companies receiving funding – shown on the previous chart – much of the increase in 2001 was in the area of initial investments in new venture capital opportunities. New funding rose from \$540 million in 2000 to \$1.6 billion in 2001. At the same time that the number of companies receiving new funding rose, the average investment in these companies also increased. The average investment per company for new funding was \$4.7 million in 1999, \$7.1 million in 2000 and \$10.0 million in 2001.

Follow-on funding has also grown, though at a lower rate. Investments in this category more than doubled from \$292 million in 2000 to \$635 million in 2001. More companies have received investments, and these investments have steadily grown in terms of their average size – from an average of \$1.1 million per company in 1999 to \$4.2 million in 2000 and \$7.5 million in 2001.

Number of New Investments by Industry
from 1 July 1999 to 30 June 2000

Industry	No. of Cos
Internet Specific	21
Computer Software	12
Consumer Related	7
Industrial/Energy	7
Medical/Health	6
Communications	5
Financial Services	5
Biotechnology	4
Semiconductors/Other Elect.	3
Business Services	2
Manufacturing	2
Computer Hardware	1
Agriculture	1

Number of New Investments by Industry
from 1 July 2000 to 30 June 2001

Industry	Number of Companies
Internet Specific	26
Computer Software	18
Consumer Related	16
Biotechnology	15
Financial Services	15
Communications and Media	11
Business Services	10
Medical/Health	9
Industrial/Energy	8
Manufacturing	8
Agriculture/Forestry/Fishing	7
Computer Hardware	7
Semiconductors/Other Elect.	5
Utilities	2
Construction	1
Other	1
Transportation	1

Number of New Investments by Industry

The strong rise in total investment was reflected in specific industry sectors.

The number of biotech companies receiving venture capital investment more than tripled in the year to 15. Another category, medical and health, also saw a rise in the number of companies receiving investment, from six in 2000 to nine in 2001.

The financial services sector experienced similar growth. In this sector, 15 companies received funding in 2001 compared to five in 2000. In the more general sector of business services the number of companies receiving investment rose from two to ten.

Information technology and communications continued to stand out in terms of the total number of companies being backed by venture capital. Of all the new investments, 67 were in this area of advanced technology – ranging from Internet to software, communications, media, hardware and other electronics.

Despite the collapse of many Internet ventures and the severe fall in global sharemarket valuations for Internet companies, investment in Australia in these companies continued to rise during the year to June 2001. There were 26 investments in Internet sector companies in 2001 compared to 21 in 2000.

Number of New Investments by Stage from 1 July 1999 to 30 June 2000

Stage	Number of Companies
Seed/Startup	15
Early Stage/Growth	7
Other	4
MBO/LBO	9
Development/Expansion	40
Later Stage	1

** Note: The number of companies listed is less than the number of new investments since the stages of some companies were not recorded on the surveys.

Number of New Investments by Stage from 1 July 2000 to 30 June 2001

Stage	Number of Companies
Expansion	119
Oth Early Stage	30
Seed	30
Startup	27
Acquisition	9
Later Stage	7
VC Partnership	6
Special Sit.	5
Public Market	2

Number of New Investments by Stage

The nature of many venture capital investments changed significantly during the year to June 2001. Australian venture capital funds tended to direct more of their investments to companies at a later stage of development – where capital requirements can be greater and companies have moved beyond the startup phase.

Of all the companies receiving investment, one group of companies stood out. More than half the investments during 2001 went to companies at the expansion stage of their development. There were 119 companies in this category during the year.

There were seven investments in later stage companies and nine in companies at an acquisition stage of their development – seeking to expand by using venture capital for acquisitions.

Companies at earlier growth stages also raised funds. There were 30 investments in seed stage companies, 27 in startup companies and 30 in other early stage companies.

Types of Exits (1998-2001)

Year	IPO	M&A	Bankrupt	Other Exit
1998	6	5	1	1
1999	7	5	2	3
2000	20	4	2	0
2001	3	2	3	6
Totals	36	16	8	10

Types of Exits

The uncertainty on global sharemarkets has had a clear impact on the exit opportunities for Australian venture capital funds.

During 2000, the clear majority of exits were managed on public markets through initial public offerings (IPOs). Of the exits achieved by venture capital funds in that year, 20 of them – or 76.9 per cent of the total – were through IPOs.

This changed in 2001 as companies found it difficult to generate interest in their plans for listing on public markets. Venture capital funds managed three exits through IPOs.

Mergers and acquisitions, traditionally the alternatives to public listings, also fell. There were two exits through mergers and acquisitions during the year.

The recorded bankruptcies increased in 2001, but nonetheless remained relatively low given the concerns about the sometimes harsh business conditions in sectors such as Internet technology, information technology and communications. Three companies went bankrupt, compared to two in the previous year.

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Australian Fund Performance

Overall Fund Performance

Australian venture capital funds established from 1986 to 2001 produced a pooled average internal rate of return, or IRR, of 21.7 per cent annually from their inception to the end of June 2001.

This performance compares well with other forms of investment as well as private equity investment in other countries.

Australian venture capital exceeded the returns on Australia's public market over a similar period. Shares listed on the Australian Stock Exchange generated a gross return of 13.5 per cent per annum in the ten years to December 2000, according to a report prepared by Towers Perrin and issued by the Australian Stock Exchange in September 2001.

The Towers Perrin report found that Australian investments in listed property companies produced a gross return of 12.3 per cent per annum over the decade, while managed funds rose 10.5 per cent, fixed interest rose 10.0 per cent, residential property rose 9.3 per cent and cash produced a gross return of 5.5 per cent per annum over the decade.

In addition to exceeding many other forms of investment in Australia, venture capital in Australia produced healthy returns when compared to the larger and more developed venture capital industry in the United States.

Venture capital funds in the US produced a pooled average IRR of 28.4 per cent annually in the ten years to June 2001. The pooled average IRR for the 20 years to June 2001 was 18.7 per cent.

This comparison between venture capital in Australia and the US is difficult given that the figures for Australia include private equity funds of many different types,

ranging from seed funds to leveraged buyout funds. In the US, by contrast, the figures for venture capital performance do not include buyouts and mezzanine investments.

When all US private equity funds are considered together, the overall returns are very much in line with the returns in Australia.

The pooled average IRR for US private equity was 20.2 per cent per year in the ten years to June 2001. This was slightly below the Australian pooled average IRR of 21.7 per cent per year for Australian venture capital to June 2001.

Fund Performance by Vintage Year

The following tables present information on the performance of some Australian venture capital funds up to June 30, 2001. Because the sample sizes are relatively small in some cases, it is difficult to generalise about the industry from the results shown here. Nonetheless, the tables present useful information on performance in recent times.

Because the performance of a fund is heavily influenced by that fund's year of formation, we present the information on the following tables according to the 'vintage year' of the funds being sampled. There is no data presented for 1995 because the sample size for this year was too small.

Some conclusions stand out from this grouping of funds according to their years. In the period up to June 30, 2001, some of the strongest returns were recorded by funds established in 1996. These funds showed a pooled average IRRs of 33.2 per cent from their inception through to the end of the period under review.

Funds established in 1997 posted a pooled average of 13.5 per cent from their inception through to the end of the period under review. Funds established in 1998 showed a pooled average of 11.3 per cent.

As is customary in venture capital, younger funds faced substantial challenges in matching the performance recorded by those that were a few years older. Funds established in 1999 recorded a pooled average IRR of -3.9 per cent , while those established in 2000 performed slightly worse with a pooled average IRR of -4.3 per cent.

As younger funds see their investments mature, their rates of return typically increase. It is common to see a J-curve effect in which returns are negative in the early years of a fund and then rise in subsequent years. It is not unreasonable to expect some of Australia's newer funds to experience steadily increasing returns in the coming few years.

Overall Fund Performance (Vintage Years 1986-2001)

Vintage Years 1986-2001

Internal Rate of Return

	Sample	Cap.	Pooled		Upper		Lower		
From:	Size	Avg	Wtd.	Avg	Maximum	Quartile	Median	Quartile	Minimum
Inception to 12/31/2000	38	6.70	-3.10	27.90	98.70	17.10	3.90	0.00	-100.00
Inception to 03/31/2001	41	2.50	-7.20	23.40	82.60	14.60	1.70	0.00	-98.90
Inception to 06/30/2001	41	4.30	-6.00	21.70	81.90	17.00	1.50	0.00	-95.30

Vintage Years 1986-2001

Ratio Analysis

Distribution/Paid-In	Sample		Cap.	Pooled		Upper		Lower	
From:	Size	Avg	Wtd.	Avg	Maximum	Quartile	Median	Quartile	Minimum
Inception to 12/31/2000	38	0.33	0.27	0.34	2.13	0.51	0.04	0.00	0.00
Inception to 03/31/2001	41	0.32	0.26	0.35	2.13	0.49	0.01	0.00	0.00
Inception to 06/30/2001	41	0.33	0.28	0.34	2.13	0.49	0.03	0.00	0.00
Residual Value/Paid-In									
From:									
Inception to 12/31/2000	38	0.97	0.89	1.05	2.76	1.03	1.00	0.82	0.05
Inception to 03/31/2001	41	0.93	0.85	1.01	2.76	1.00	1.00	0.70	0.05
Inception to 06/30/2001	41	0.93	0.83	1.00	2.76	1.00	0.99	0.70	0.05
Total Value/Paid-In									
From:									
Inception to 12/31/2000	38	1.30	1.16	1.39	2.91	1.41	1.08	1.00	0.05
Inception to 03/31/2001	41	1.25	1.11	1.35	2.91	1.42	1.03	1.00	0.05
Inception to 06/30/2001	41	1.26	1.11	1.35	2.91	1.53	1.03	1.00	0.05

Vintage Years 1986-2001

Horizon Returns

	Sample Size	Pooled Avg.
06/30/2000 to 06/30/2001	43	-5.8
06/30/1999 to 06/30/2001	43	5.1
06/30/1998 to 06/30/2001	43	7.8
06/30/1997 to 06/30/2001	43	8.2
06/30/1996 to 06/30/2001	43	13.9
06/30/1995 to 06/30/2001	43	12.9
06/30/1994 to 06/30/2001	43	12.9
06/30/1993 to 06/30/2001	43	13.5
06/30/1992 to 06/30/2001	43	13.2
06/30/1991 to 06/30/2001	43	12.9
06/30/1990 to 06/30/2001	43	12.7
06/30/1989 to 06/30/2001	43	12.6
06/30/1988 to 06/30/2001	43	12.4

Vintage Year 1994

Internal Rate of Return

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	3	9.4	8.2	7.4	14.6	11.2	7.9	6.9	5.9
Inception to 03/31/2001	3	9.2	7.9	7.1	14.3	10.9	7.5	6.6	5.7
Inception to 06/30/2001	3	8.9	7.5	6.9	14	10.5	7.1	6.3	5.6

Vintage Year 1994

Distribution to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	3	0.68	0.56	0.58	1.01	0.76	0.52	0.51	0.51
Inception to 03/31/2001	3	0.68	0.57	0.58	1.01	0.77	0.53	0.52	0.51
Inception to 06/30/2001	3	0.68	0.57	0.58	1.01	0.77	0.53	0.52	0.51

Vintage Year 1994

Residual Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	3	0.58	0.68	0.68	0.82	0.77	0.72	0.46	0.20
Inception to 03/31/2001	3	0.57	0.67	0.67	0.82	0.76	0.70	0.45	0.20
Inception to 06/30/2001	3	0.57	0.67	0.67	0.82	0.76	0.70	0.45	0.20

Vintage Year 1994

Total Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	3	1.26	1.24	1.25	1.33	1.28	1.23	1.22	1.21
Inception to 03/31/2001	3	1.26	1.24	1.25	1.33	1.28	1.23	1.22	1.21
Inception to 06/30/2001	3	1.26	1.24	1.25	1.33	1.28	1.23	1.22	1.21

Vintage Year 1994

Horizon Returns

	Sample Size	Pooled Avg
06/30/2000 to 06/30/2001	3	-12.0
06/30/1999 to 06/30/2001	3	-2.7
06/30/1998 to 06/30/2001	3	6.5
06/30/1997 to 06/30/2001	3	3.1
06/30/1996 to 06/30/2001	3	6.5
06/30/1995 to 06/30/2001	3	4.4
06/30/1994 to 06/30/2001	3	5.9

Vintage Year 1996

Internal Rate of Return

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	4	42.3	32.2	39.8	98.7	66.3	27.4	18.4	15.7
Inception to 03/31/2001	4	35.8	28.1	34.0	82.6	54.3	23.1	17.4	14.6
Inception to 06/30/2001	4	33.7	27.1	33.2	81.9	51.9	19.7	15.6	13.6

Vintage Year 1996

Distribution to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	4	0.73	0.67	0.86	1.39	1.09	0.63	0.38	0.28
Inception to 03/31/2001	4	0.78	0.70	0.91	1.53	1.16	0.64	0.39	0.29
Inception to 06/30/2001	4	0.81	0.72	0.95	1.58	1.23	0.68	0.39	0.29

Vintage Year 1996

Residual Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	4	1.13	0.96	1.05	1.72	1.52	1.09	0.75	0.63
Inception to 03/31/2001	4	0.96	0.86	0.86	1.50	1.18	0.86	0.74	0.62
Inception to 06/30/2001	4	0.91	0.86	0.86	1.25	1.08	0.89	0.74	0.62

Vintage Year 1996

Total Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	4	1.87	1.63	1.91	2.70	2.35	1.71	1.38	1.35
Inception to 03/31/2001	4	1.74	1.56	1.78	2.39	2.09	1.60	1.38	1.35
Inception to 06/30/2001	4	1.72	1.58	1.81	2.50	2.01	1.51	1.42	1.35

Vintage Year 1996

Horizon Returns

	Sample Size	Pooled Avg
06/30/2000 to 06/30/2001	4	-6.2
06/30/1999 to 06/30/2001	4	23.9
06/30/1998 to 06/30/2001	4	26.4
06/30/1997 to 06/30/2001	4	22.2
06/30/1996 to 06/30/2001	4	33.7

Vintage Year 1997

Internal Rate of Return

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	5	14.50	13.70	13.70	31.10	23.50	11.20	6.80	0.00
Inception to 03/31/2001	5	17.40	15.50	14.00	27.80	27.00	21.10	11.10	0.00
Inception to 06/30/2001	5	16.90	15.00	13.50	30.10	23.80	19.20	11.20	0.00

Vintage Year 1997

Distribution to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	5	0.20	0.18	0.27	0.80	0.14	0.04	0.00	0.00
Inception to 03/31/2001	5	0.20	0.18	0.26	0.80	0.14	0.04	0.00	0.00
Inception to 06/30/2001	5	0.20	0.18	0.26	0.80	0.14	0.04	0.00	0.00

Vintage Year 1997

Residual Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	5	1.10	1.08	0.99	1.66	1.40	1.15	1.10	0.20
Inception to 03/31/2001	5	1.20	1.15	1.02	1.66	1.53	1.40	1.18	0.20
Inception to 06/30/2001	5	1.21	1.17	1.04	1.66	1.56	1.40	1.21	0.20

Vintage Year 1997

Total Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	5	1.30	1.27	1.25	1.66	1.55	1.20	1.10	1.00
Inception to 03/31/2001	5	1.39	1.33	1.29	1.66	1.55	1.53	1.22	1.00
Inception to 06/30/2001	5	1.40	1.35	1.30	1.66	1.56	1.55	1.25	1.00

Vintage Year 1997

Horizon Returns

	Sample Size	Pooled Avg
06/30/2000 to 06/30/2001	5	3.6
06/30/1999 to 06/30/2001	5	16.5
06/30/1998 to 06/30/2001	5	14.4
06/30/1997 to 06/30/2001	5	13.6

Vintage Year 1998

Internal Rate of Return

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	7	-4.4	-47.8	16.6	93.9	14.7	2.0	-28.2	-100.0
Inception to 03/31/2001	7	-6.5	-45.9	13.0	78.7	9.6	1.7	-23.1	-98.9
Inception to 06/30/2001	7	-6.9	-45.4	11.3	67.6	14.1	1.5	-25.2	-95.3

Vintage Year 1998

Distribution to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	7	0.06	0.03	0.07	0.16	0.12	0.03	0.01	0.00
Inception to 03/31/2001	7	0.06	0.03	0.07	0.15	0.11	0.03	0.01	0.00
Inception to 06/30/2001	7	0.09	0.07	0.11	0.32	0.12	0.06	0.01	0.00

Vintage Year 1998

Residual Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	7	1.07	0.58	1.14	2.76	1.08	1.00	0.75	0.05
Inception to 03/31/2001	7	1.06	0.57	1.13	2.76	1.07	1.00	0.72	0.05
Inception to 06/30/2001	7	1.04	0.54	1.07	2.76	1.07	1.00	0.67	0.05

Vintage Year 1998

Total Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	7	1.13	0.61	1.21	2.91	1.20	1.03	0.75	0.05
Inception to 03/31/2001	7	1.12	0.60	1.20	2.91	1.17	1.03	0.75	0.05
Inception to 06/30/2001	7	1.13	0.61	1.19	2.91	1.24	1.03	0.74	0.05

Vintage Year 1998

Horizon Returns

	Sample Size	Pooled Avg
06/30/2000 to 06/30/2001	7	-6.6
06/30/1999 to 06/30/2001	7	9.6
06/30/1998 to 06/30/2001	7	9.3

Vintage Year 1999

Internal Rate of Return

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	7	-8.3	-5.7	-3.7	1.8	0.0	0.0	-15.3	-29.8
Inception to 03/31/2001	9	-17.4	-8.0	-7.8	1.4	0.0	0.0	-28.6	-72.8
Inception to 06/30/2001	9	-7.3	-4.0	-3.9	52.0	0.0	0.0	-29.5	-53.0

Vintage Year 1999

Distribution to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inception to 03/31/2001	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inception to 06/30/2001	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vintage Year 1999

Residual Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	7	0.97	0.98	0.97	1.01	1.00	1.00	0.94	0.87
Inception to 03/31/2001	9	0.90	0.96	0.93	1.01	1.00	1.00	0.86	0.58
Inception to 06/30/2001	9	0.98	0.99	0.96	1.64	1.00	1.00	0.83	0.58

Vintage Year 1999

Total Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	7	0.97	0.98	0.97	1.01	1.00	1.00	0.94	0.87
Inception to 03/31/2001	9	0.90	0.96	0.93	1.01	1.00	1.00	0.86	0.58
Inception to 06/30/2001	9	0.98	0.99	0.96	1.64	1.00	1.00	0.83	0.58

Vintage Year 1999

Horizon Returns

	Sample Size	Pooled Avg
06/30/2000 to 06/30/2001	9	-15.6
06/30/1999 to 06/30/2001	9	-3.7

Vintage Year 2000

Internal Rate of Return

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	8	-4.6	-5.3	-13.7	28.3	0.0	0.0	-12.5	-39.7
Inception to 03/31/2001	9	-5.0	-18.4	-6.5	14.2	0.0	0.0	-5.3	-27.5
Inception to 06/30/2001	9	-4.2	-16.2	-4.3	9.1	0.0	0.0	-3.7	-22.1

Vintage Year 2000

Distribution to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	8	0.01	0.00	0.00	0.07	0.00	0.00	0.00	0.00
Inception to 03/31/2001	9	0.01	0.00	0.00	0.06	0.00	0.00	0.00	0.00
Inception to 06/30/2001	9	0.01	0.00	0.00	0.06	0.00	0.00	0.00	0.00

Vintage Year 2000

Residual Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	8	0.97	0.97	0.98	1.00	1.00	1.00	0.98	0.79
Inception to 03/31/2001	9	0.96	0.90	0.98	1.00	1.00	1.00	0.97	0.83
Inception to 06/30/2001	9	0.96	0.88	0.97	1.00	1.00	1.00	0.97	0.84

Vintage Year 2000

Total Value to Paid-In

From:	Sample Size	Avg	Cap. Wtd.	Pooled Avg	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
Inception to 12/31/2000	8	0.98	0.98	0.99	1.07	1.00	1.00	0.98	0.79
Inception to 03/31/2001	9	0.97	0.91	0.98	1.06	1.00	1.00	0.97	0.83
Inception to 06/30/2001	9	0.97	0.88	0.97	1.06	1.00	1.00	0.97	0.84

Vintage Year 2000

Horizon Returns

	Sample Size	Pooled Avg
06/30/2000 to 06/30/2001	9	-2.8

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Glossary of Terms

Angel:

A wealthy individual who invests in entrepreneurial firms. Although angels perform many of the same functions as venture capitalists, they invest their own capital rather than that of institutional or other individual investors.

Burn rate:

The rate at which a company requires additional cash to keep going.

Carried interest:

The substantial share, often around 20%, of profits that are allocated to the general partners of a venture capital partnership.

Co-investment:

See syndication.

Committed capital:

Pledges of capital to a venture capital fund. This capital is drawn down over the life of the fund.

Common stock:

The equity typically held by management and founders. Typically, at the time of an initial public offering, all equity is converted into common stock.

Consolidation:

A private equity investment strategy that involves merging several small firms together and exploiting economies of scale or scope.

Convertible equity or debt:

A security that can be converted under certain conditions into another security (often into ordinary shares). The convertible shares often have special rights that the ordinary shares do not have.

Corporate venture capital:

An initiative by a corporation to invest either in young firms outside the corporation or units formerly part of the corporation. These are often organised as corporate subsidiaries, not as limited partnerships.

Distressed debt:

A private equity investment strategy that involves purchasing discounted bonds of a financially distressed firm. Distressed debt investors frequently convert their holdings into equity and become actively involved with the management of the distressed firm.

DPI:

See realisation ratios.

Earn out:

Part of the price of a transaction, which is conditional on the performance of the company following the deal.

Exercise price:

The price at which an option or warrant can be exercised.

Firm:

The partnership which manages a venture capital fund. One firm might manage more than one fund.

First closing:

The initial closing of a fund.

First fund:

An initial fund raised by a venture capital organisation.

Float:

In a public market context, the percentage of the company's shares that is in the hands of outside investors, as opposed to being held by corporate insiders.

Flotation:

To obtain a quotation or IPO on a stock exchange, such as the Australian Stock Exchange or the NASDAQ.

Follow-on fund:

A fund that is subsequent to a venture capital organisation's first fund.

Follow-on offering:

See seasoned equity offering.

Fund:

A pool of capital raised periodically by a venture capital organisation. Usually in the form of limited partnerships, venture capital funds typically have a ten-year life, though extensions of several years are often possible.

Fund of funds:

A fund that invests primarily in other venture capital funds rather than portfolio firms, often organised by an investment adviser or investment bank.

Gatekeeper:

See investment adviser.

Gearing, debt/equity ratio or leverage:

The total borrowings of a company expressed as a percentage of shareholders' funds.

In the money:

Any option or warrant that would have a positive value if it was immediately exercised.

Investment adviser:

A financial intermediary who assists investors, particularly institutions, with investments in venture capital and other financial assets. Advisers assess potential new venture funds for their clients and monitor the progress of existing investments. In some cases, they pool their investors' capital in funds of funds.

Involuntary exit:

Where the company goes into receivership or liquidation.

IPO:

'Initial Public Offering', 'flotation', 'float', 'going public', 'listing' are just some of the terms used when a company obtains a quotation on a stockmarket.

IRR: Internal Rate of Return

There are three versions of the internal rate of return used in the AVCAL Yearbook - the arithmetic average, the capital weighted average, and the pooled average.

The arithmetic average IRR for a sample would be the sum of the IRRs for the individual funds in the sample divided by the number of funds in the sample.

The capital weighted average IRR is calculated in a similar manner, except the individual IRRs are weighted by fund size and affect the average in proportion to their size. Therefore, this average for the sample is skewed towards the larger funds.

A pooled average IRR isn't actually an average, but one average calculated for the entire sample. In other words, instead of using the cash flows of the funds to calculate IRRs for each fund, the sample (and all of the accompanying cash flows) is treated as one fund and one IRR is calculated for it.

LBO:

Leveraged buyout, the acquisition of a firm or business unit, typically in a mature industry, with a considerable amount of debt.

Leveraged buyout fund:

A fund, typically organised in a similar manner to a venture capital fund, specialising in leveraged buyout investments. Some of these funds also make venture capital investments.

Limited Partners:

The investors in a limited partnership.

Limited Partnerships:

The legal structure used by most venture and private equity funds. Usually fixed life investment vehicles. The general partner or management firm manages the partnership using policy laid down in a Partnership Agreement. The Agreement also covers, terms, fees, structures and other items agreed between the limited partners and the general partner.

Loan capital:

Loan capital ranks ahead of share capital for income and capital. Loans typically are entitled to interest and are usually, though not necessarily, repayable. Loans may be secured on the company's assets or may be unsecured. A secured loan will rank ahead of unsecured loans and certain other creditors of the company. A loan may be convertible into equity shares. Alternatively, it may have a warrant attached which gives the loan holder the option to subscribe for new equity shares on terms fixed in the warrant. They typically carry a higher rate of interest than bank term loans and rank behind the bank for payment of interest and repayment of capital.

Lock-up:

A provision in the underwriting agreement between an investment bank and existing shareholders that prohibits corporate insiders and private equity investors from selling at the time of the offering.

Management fee:

The fee, typically a percentage of committed capital or net asset value, that is paid by a venture capital fund to the general partners to cover salaries and expenses.

Management Team:

The general partners that oversee the activities of the venture capital fund.

Management Firm:

The manager of a specific fund or funds. Where the fund is a limited partnership the management firm is the General Partner.

Mezzanine:

Either (1) a venture capital financing round shortly before an initial public offering or (2) an investment that employs subordinated debt that has fewer privileges than bank debt but more privileges than equity and often has attached warrants.

Option:

The right, but not the obligation, to buy or sell a security at a set price (or range of prices) in a given period.

Ordinary shares:

These are equity shares that are entitled to all income and capital after the rights of all other classes of capital and creditors have been satisfied. Ordinary shares have votes. In a venture capital deal these are the shares typically held by the management and family shareholders rather than the venture capital firm.

Placement agent:

A financial intermediary hired by venture organisations to facilitate the raising of new venture capital funds.

Post-money valuation:

The product of the price paid per share in a financing round and the shares outstanding after the financing round.

Pre-money valuation:

The product of the price paid per share in a financing round and the shares outstanding before the financing round.

Preference shares:

These are non-equity shares. They rank ahead of all classes of ordinary shares for income and capital. Their income rights are defined and they are usually entitled to a fixed dividend (e.g. 10 per cent fixed). The shares may be redeemable on fixed dates or they may be irredeemable. Sometimes they may be redeemable at a fixed premium (e.g. at 120 per cent of cost). They may be convertible into a class of ordinary shares.

Preferred ordinary shares:

These may also be known as 'A' ordinary shares, cumulative convertible participating preferred ordinary shares or cumulative preferred ordinary shares. These are equity shares with preferred rights. Typically they will rank ahead of the ordinary shares for income and capital. Once the preferred ordinary share capital has been repaid, the two classes would then rank pari passu in sharing any surplus capital. Their income rights may be defined; they may be entitled to a fixed dividend (a percentage linked to the subscription price, e.g. 8 per cent fixed) and/or they may have a right to a defined share of the company's profits - known as a participating dividend (e.g. 5 per cent of profits before tax). Preferred ordinary shares have votes.

Preferred stock:

Stock that has preference over common stock with respect to any dividends or payments in association with the liquidation of the firm. Preferred stockholders may also have additional rights, such as the ability to block mergers or displace management.

Private equity:

Private equity includes organisations devoted to venture capital, leveraged buyouts, consolidations, mezzanine and distressed debt investments, and a variety of hybrids such as venture leasing and venture factoring.

Prospectus:

A condensed, widely disseminated version of the registration statement that is also filed with the US Securities and Exchange Commission. The prospectus provides a wide variety of summary data about the firm.

Ratchets:

A structure whereby the eventual equity allocations between the groups of shareholders depend on either the future performance of the company or the rate of return achieved by the venture capital firm. This allows management shareholders to increase their stake if the company performs particularly well.

Refinancing:

The purchase of the venture capital investors' or others' shareholdings by another investment institution.

Realisation ratios: DPI, RVPI, TVPI:

DPI: Distribution to Paid-In ratio (a realization ratio). The DPI measures the ratio of distributions to the limited partners compared to the amount of capital contributed by the limited partners.

RVPI: Residual Value to Paid-In ratio (a realization ratio). The RVPI measures the net asset value of the funds (unrealized gains), compared to the amount of capital contributed by the limited partners.

TVPI: Total Value to Paid-In ratio (a realization ratio). The TVPI is simply the DPI and RVPI added together.

A drawback of these ratios is that they do not take into account the time value of money, but are simply based on actual capital figures. For this reason, we recommend that they be used in conjunction with the IRRs.

Repurchase:

The repurchase of the venture capital investors' shares by the company and/or its management.

Road show:

The marketing of a venture capital fund or public offering to potential investors.

Roll-up:

See consolidation.

RVPI:

See realisation ratios.

Seasoned equity offering:

An offering by a firm that has already completed an initial public offering and whose shares are already publicly traded.

Secondary offering:

An offering of shares that are not being issued by the firm, but rather are sold by existing shareholders. The firm consequently does not receive the proceeds from the sales of these shares.

Share capital:

The structure of share capital that will be developed involves the establishment of certain rights. The venture capital firm will try to balance the risks it is taking with the rewards it is seeking. It will also be aiming to put together a package that best suits your company for future growth. These structures require the assistance of an experienced qualified legal adviser.

Shares outstanding:

The number of shares that the company has issued.

Staging:

The provision of capital to entrepreneurs in multiple instalments, with each financing conditional on meeting particular business targets. This helps ensure that the money is not squandered on unprofitable projects.

Syndication:

The joint purchase of shares by two or more venture capital organisations or the joint underwriting of an offering by two or more investment banks.

Tombstone:

An advertisement, typically in a major business publication, by an underwriter to publicise an offering that it has underwritten.

Trade sale:

The sale of your company's shares to another company, perhaps in the same industry sector.

TVPI:

See realisation ratios.

Underwriting:

The purchase of a securities issue from a company by an investment bank and its (typically almost immediate) resale to investors.

Venture capital:

Independently managed, dedicated pools of capital that focus on equity or equity-linked investments in privately held, high-growth companies. Many venture capital funds, however, occasionally make other types of private equity investments. Outside the United States, this phrase is often used as a synonym for private equity.

Venture capitalist:

A general partner or associate at a venture capital organisation.

Vintage year:

The groups of funds whose first closing was in a certain year.

Yield:

Calculated by dividing the gross dividend by the share price and expressed as percentage. It shows the annual return on an investment from interest and dividends, excluding any capital gain element.

For more information, please refer to: www.ventureeconomics.com

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Acknowledgement of Quantitative Survey Respondents

Allen & Buckeridge Pty Ltd
Castle Harlan Australian Mezzanine Partners Pty Ltd
Catalyst Investment Managers Pty Ltd
Challenger International Ltd
Deutsche Bank - DB Capital Partners
Equity Partners
Ferrier Babcock Pty Limited
Gresham Private Equity
GS Private Equity Pty Limited
Innovation Capital Associates Pty Ltd
Nanyang Ventures Pty Ltd
Quadrant Capital Fund
Rothschild Arrow Development Fund
Start-up Australia Pty Ltd
Technology Venture Partners
UBS Capital
Venture Capital Partners Pty Limited

* A profile of each of these firms can be found at [www.avcal.com.au / directory of members / venture capitalists](http://www.avcal.com.au/directory_of_members/venture_capitalists).

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