

Australia as a Hub for Analytics Offshoring

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Introduction

Analytics offshoring is a specialised part of the broader move to offshoring, most closely associated with India and IT/communications-based processing. For many, less complex, offshoring activities, the cost of labour is the compelling driver for relocating activities. Where high volume transactions and routine call-based processing is involved, ICT infrastructure and office accommodation costs are also important. Finally, language skills and time zone may also critically influence location.

In more specialised areas like analytics offshoring, cost is again a driver, with other considerations – the availability of highly qualified professionals, operational risk, the reliability of critical infrastructure and market integrity – also pivotal.

Analytics offshoring potentially covers a wide range of financial services activities in retail and investment banking, insurance, funds management, custody and administration. Drawing upon a diverse skill-set, there is a need for actuaries, accountants, auditors, lawyers, research analysts and economists.

Australia's deep and sophisticated financial markets, large numbers of finance sector professionals and ready pool of tertiary trained students make a compelling business case for Australia as an analytics offshoring hub. Added to this are low operational risk, a transparent and world best practice regulatory framework, a strong legal (and intellectual property) system, sophisticated ICT infrastructure, and highly competitive professional salary levels and office accommodation costs.

SECTION 1:

Offshoring and the Financial Services Industry

One of the most significant trends to emerge in the financial services industry over the last decade has been the pursuit of global sourcing strategies by global financial institutions. In other words, offshoring.

Offshoring refers to a business decision to employ workers in another country to perform the work once done locally.¹ It has been enabled by advances in technology and the processes dependent on it, and was given urgency by the downturn in investment banking in 2000. Offshoring is now a feature of the operational models of many global financial institutions.

Several studies have examined the rate at which global financial services companies would offshore processes, and the benefits of various offshore locations.

- In January 2004, McKinsey and Company found that approximately 25 to 30 per cent of the process cost base within retail banking, corporate banking and life, property and casualty insurance was offshoreable.²
- In March 2004, A.T.Kearney produced the 'Offshore Location Attractiveness Index' to 'help companies understand and compare the factors that make countries attractive as potential locations for offshore services'.³
- In June 2004, Deloitte Research conducted a survey of 43 global financial institutions, based in seven countries, and concluded that an average of 20 per cent of the industry's cost base would be taken offshore by the year 2010.⁴
- In September 2005, PricewaterhouseCoopers (PWC) found that the scale of offshoring in the financial services sector is set to virtually double by 2008.⁵

¹ Parliament of Australia, Research Brief, *Offshoring jobs: US and Australian debates*, March 2005, p.5.

² McKinsey and Company, *Can Banks Grow Beyond M&A*, No.1, 2004.

³ A.T. Kearney, *Making Offshore Decisions*, 2004.

⁴ Deloitte Research, *The Titans Take Hold: How offshoring has changed the competitive dynamic for global financial services institutions*, 2004.

⁵ PricewaterhouseCoopers, *Offshoring in the Financial Services Industry: Risks and Rewards*, 2005.



1.1 THE EVOLUTION OF OFFSHORING STRATEGIES IN THE FINANCIAL SERVICES INDUSTRY

In the financial services industry, different models have been used to offshore functions. They include:

- Captive offshoring – companies setting up their own operations in offshore locations.
- ‘Build, operate, transfer’ models where global companies develop the operation, then hand it over to local companies to run.
- Joint ventures with local companies.
- Outsourcing – employing third parties to perform the required functions.

Offshoring has evolved through various stages, each increasing in sophistication and value added, and each driven by the desire to realise greater cost savings.

INFORMATION TECHNOLOGY AND APPLICATION MANAGEMENT SERVICES

In the 1980s several global banking institutions began setting up captive IT centres of excellence in offshore locations such as Mumbai and Bangalore, in India, Kuala Lumpur, in Malaysia and Warsaw, in Poland. These centres were largely responsible for IT systems maintenance and application development.

The knowledge base and skill-sets underpinning these centres of excellence were quickly disseminated within the domestic IT communities – especially in India – and gave rise to third-party offshore IT service providers. Companies such as Infosys, Wipro, Tata and Unisys were set up at this time.

BUSINESS PROCESS OUTSOURCING

The encouraging results of IT and application development offshoring strategies, both through captive centres of excellence, as well as third-party service providers, encouraged progress up the value chain towards IT Enabled Services activities (ITES) and eventually to Business Process Outsourcing (BPO).

ITES activities included elementary processing, administrative and support activities, such as customer records management, standard mail-outs using customer databases, processing credit card statements and cheque and voucher processing.

BPO activities added voice-based components, such as inbound and outbound contact centre activities and more sophisticated processing activities, such as mortgage origination and settlement support, credit card collections, insurance new business and administration activities.

Again, the trend was initiated by captives of global financial services organisations and quickly adopted by several third-party service providers.

EMERGENCE OF ANALYTICS OFFSHORING

Building on the success of BPO, analytics offshoring is defined by the increasing sophistication of offshoring strategies, moving towards knowledge-based activities. These activities place greater emphasis on advanced qualifications, use of sophisticated platforms for analysis and highly skilled staff and they are most commonly part of investment banking research services.

The distinction between these value-added activities and other revenue-generating activities now being offshored is not yet clear. Analytics offshoring may represent the peak of the BPO trend or the start of a new stage, which is moving towards offshoring activities which generate revenue.

1.2 ANALYTICS OFFSHORING

In 2003, Deloitte Research released *Right-Sizing Research*,⁶ a paper that followed the much-publicised settlement between several global investment banks and securities regulators over conflicts of interest. The banks' settlement provided focus for what the bear market (post-2000) had already revealed about investment banking research – its cost base was not sustainable.

Deloitte Research estimated that compensation packages accounted for 75 per cent of investment banking research costs among large, integrated banking groups and found that, on average, research accounted for over 2.5 per cent of the total operating expenses of an investment bank. The reduction of this cost base has become a business opportunity.

Some early captive examples include JPMorgan's Global Research Centre, set up in Mumbai in August 2003. It is an extension of the firm's global research team and provides equity research, credit research, equity/credit derivatives research, credit portfolio research and economics research.

Morgan Stanley Advantage Services was also set up in Mumbai in 2003. It supports Morgan Stanley's institutional securities business worldwide and provides a range of specialist services including research, financial modelling and IT development.

As with earlier stages of offshoring, several third-party service providers have developed offshore analytics services. In Australia there are several firms already offering outsourced research services. This includes Brisbane-based Rapid Ratings and Sydney-based Tillinghurst Software solutions (an actuarial service provider). Details of leading offshore third-party providers are provided in Appendix 1.

DEFINING ANALYTICS OFFSHORING

In early 2005, Invest Australia commissioned Swamy & Associates, an independent financial services offshoring specialist advisory firm, to report on the current breadth and scope of offshored analytics functions. Representatives from Axis Australia, a Division of Invest Australia, and Invest Australia visited India in April 2005 and held meetings with many of the companies identified by Swamy & Associates.

The research and site visits found that offshoring of high-value analytics functions is occurring, along with the development of third-party service providers. Based on the way previous offshoring activities developed, the emergence of third-party providers offering services that mirror captive offerings, indicates a degree of maturity in this niche market.

The functions and services that have been offshored (as well as outsourced), occur predominantly in:

- Equity research, corporate finance and mergers and acquisitions
- Corporate credit, structured finance and project finance
- Retail banking
- Strategic functions
- Actuarial services

Details of the services that have been offshored are provided in Appendix 2.

DRIVERS OF THE ANALYTICS OFFSHORING INDUSTRY IN BANKING AND INSURANCE

- The push towards global sourcing at most financial services organisations
- Enhanced ability to consolidate analytics and analytics support functions, methodologies and software platforms
- The trend towards harmonisation of standards, qualifications, skill sets and experience requirements for performing analytics functions
- Increasing sophistication of process quality control
- Growing realisation of the quality of the education systems in offshore locations

⁶ Deloitte Research, *Right-Sizing Research: New business economics: The future of investment banking research*, 2003.



BARRIERS TO ANALYTICS OFFSHORING

Swamy & Associates identified the following limits to the growth of analytics offshoring, through the outsourced model:

- Infrastructure shortages and bottlenecks in some of the current delivery locations
- Specialist skill-set shortages and potential for wage spirals across all analytics domains in current locations
- Regulatory and corporate governance concerns
- Business continuity planning and disaster recovery measures
- Lack of multilingual and multicultural capabilities for Continental European, East Asian and Japanese markets

The PWC survey, *Offshoring in the Financial Services Industry: Risks and Rewards*, notes that the much-preferred model for analytics offshoring is captive ventures, which continue to be majority-owned by the offshoring institution. The principle barriers to analytics offshoring identified by PWC were:

- Greater concerns over confidentiality and privacy
- Insufficiently skilled offshore staff
- Insufficient understanding of the core business in offshore locations
- Cost savings are eroded because of higher wages of skilled staff
- Difficulties in communicating/liasing with colleagues in home market
- Language and cultural barriers have a greater impact on higher-value activities⁷

OPPORTUNITIES FOR GLOBAL SOURCING

Financial services firms that favour captive models and third-party providers seeking growth both require locations that:

- Overcome these barriers
- Deliver significant cost savings
- Complement existing sourcing strategies

Australia is a location that offers:

- A highly-skilled, multicultural and multilingual workforce
- A stable, secure and low-risk, political and business environment
- A large, sophisticated and mature financial services market
- Predictable, sizeable cost savings

⁷ PricewaterhouseCoopers, *Offshoring in the Financial Services Industry: Risks and Rewards*, 2005, p.12.

SECTION 2:

Advantages of Offshoring to Australia

Australia has been a major and long-time beneficiary of global sourcing by financial institutions because it offers a highly-skilled financial services workforce, a lower-cost operating environment and a world-class legal and regulatory environment.

Offshoring analytics is a specialised part of the broader move to offshoring. At this broader level, there are some compelling examples of global financial institutions that have located regional and/or global functions in Australia.

CURRENT OFFSHORING ACTIVITY TO AUSTRALIA

ABN AMRO	Regional foreign exchange trading hub for G10 currencies.
American Express	Asia Pacific regional transaction processing and customer service centre: handles customer accounts throughout Asia (including Japan) and employs 600 staff.
Citigroup	ASPAC Capital Markets Regional Processing Centre: is the Treasury hub for the region, processing FX, money market, fixed interest, currency options and interest rate derivatives across 12 Asian countries and employs over 100 people.
Deutsche Bank	Global Technology and Operations (GTO) hub: employs over 250 high end staff in operations, technology and corporate services supporting Deutsche Bank's worldwide operation. Operations functions include global foreign exchange processing (one of two hubs), global OTC derivatives processing and regional futures and options.
Fidelity International	Asia Pacific regional finance and accounting hub.
JPMorgan	Regional Technology and Operations Centre (TOC): employs over 100 people performing regional equities and global futures and options operations. Regional custody processing hub (one of three). Employs approximately 500 people.
Merrill Lynch	Regional futures and options hub.
Morgan Stanley	Asia Pacific infrastructure centre employing over 140 staff performing securities processing, human resources, financial control, global foreign exchange processing and accounts payable.
Reuters	Asia Business Direct function, Asia Customer Order Management Centre, Japanese Translation Unit and Regional Support Centre which provides multilingual support for Japan, Hong Kong, Singapore, Taiwan, China, Thailand, Korea, Vietnam, Malaysia, Indonesia, the Philippines, New Zealand and Australia.
Royal Bank of Canada	Main trading centre for the Royal Bank of Canada in Asia, offering a full complement of foreign exchange products, including spots, forwards, currency options and research on all leading and emerging currencies, including the Asian NDF currencies. Also, regional service centre for custody and investment administration business, offering a full outsourcing solution. Employs over 300 people.
UBS	Global Services Centre: employs more than 200 people and provides 24 x 7 technical support to UBS investment banking operations globally.

A word on outsourcing: The level of outsourcing in Australia is similar to that in many other developed economies. Financial services, in particular, is a highly outsourced industry. Several global outsourcing firms have recognised the significant benefits of establishing operations in Australia to service local, regional and global markets. Global brands such as IBM, EDS, CSC, HP Services and more recently HCL, Infosys, Satyam, TCS and Wipro have all established significant operations in Australia.

In a specialised area like offshoring analytics, cost, particularly remuneration cost, is a key driver. Other considerations such as the availability of highly qualified professionals, operational risk, the reliability of critical infrastructure and market integrity are also critical. The following sections examine each of the advantages of offshoring analytics to Australia.

2.1 AUSTRALIAN SKILLS: COST, AVAILABILITY AND GLOBAL ORIENTATION

Critical to deciding on an offshore location is the cost, availability and skills of the domestic workforce. In the area of analytics and more broadly, financial services knowledge-based activities, the presence of a thriving and sophisticated domestic financial services industry provides a ready pool of experienced and employable workers.

Australia has a sizeable financial services industry, employing approximately 370,000 people. Salary levels in Australia are generally lower than in comparable centres around the world, and they are significantly more stable than in many of the lower-cost centres. The skills of Australia's financial services workforce are among the best in the world, reflecting Australia's world-class education system and unique national system of educational qualifications. The workforce is also well-suited for global project teams and servicing international operations because it is multicultural, with exceptional multilingual capabilities. The combinations of these workforce factors are prime advantages of Australia as an analytics offshoring hub in the Asia-Pacific region.

COST OF LABOUR

In a specialised area like analytics, particular skill sets are required such as actuaries, accountants, Chartered Financial Analysts (CFA), auditors and researchers. In Australia, these skills are available at comparably lower costs than other major financial centres.

The following table demonstrates the typical cost advantage of Sydney over London in specialised financial services operations and technology roles. This comparison is useful given that Australia and the UK share similar education systems and types of professional qualifications. The figures are taken from a 2005 survey and show Sydney enjoys, on average, a 30 per cent direct labour cost advantage over London.

	London (£'000)				Sydney (A\$'000)			London and Sydney Mid-range Difference %
	From	To	Mid-range	A\$ ('000)	From	To	Mid-range	
Newly qualified actuary ⁽¹⁾	NA	NA	NA	NA	85.0	125.0	105.0	NA
Fixed Income Operations Manager	50.0	70.0	60.0	142.0	70.0	120.0	95.0	-33
Derivatives Operations Manager	55.0	65.0	60.0	142.0	90.0	130.0	110.0	-23
Foreign Exchange Operations Manager	45.0	60.0	52.5	124.3	80.0	110.0	95.0	-24
Equities Operations Manager	48.0	60.0	54.0	127.8	80.0	130.0	105.0	-18
Fund Accountant (3+ yrs exp)	50.0	60.0	55.0	130.2	75.0	100.0	87.5	-33
Internal Auditor (2-5 yrs exp)	55.0	65.0	60.0	142.0	80.0	110.0	95.0	-33
IT Director	90.0	150.0	120.0	284.1	165.0	240.0	202.5	-29
IT Manager	60.0	100.0	80.0	189.4	105.0	140.0	122.5	-35

Exchange rate as at 30 June 2005: A\$1 = £0.4224, sourced from the Reserve Bank of Australia.

Sources: (1) QED Actuarial, *Salary Survey 2005*; Robert Walters, *Salary Survey 2005*; Axiss Australia

Salary figures for newly qualified actuaries in London for 2005 were unavailable, however, using the last available data from 2003, salaries ranged between \$AUD 134,000 to \$AUD 201,000.⁸ Taking the mid-point of these 2003 salaries, salary costs in Sydney (in 2005) are still around 40 per cent less expensive.

⁸ Remuneration Economics, *Salary survey of actuaries and actuarial students 2003*; Axiss Australia. (Exchange rate as at 30 June 2003: A\$1 = £0.4038, sourced from the Reserve Bank of Australia.)

For CFAs, a global survey conducted in 2005 found that the median salary in Australia was \$AUD 131,000 compared to London which was \$AUD 172,000.⁹ This represents a cost advantage for Australia of almost 25 per cent.

AVAILABILITY OF LABOUR

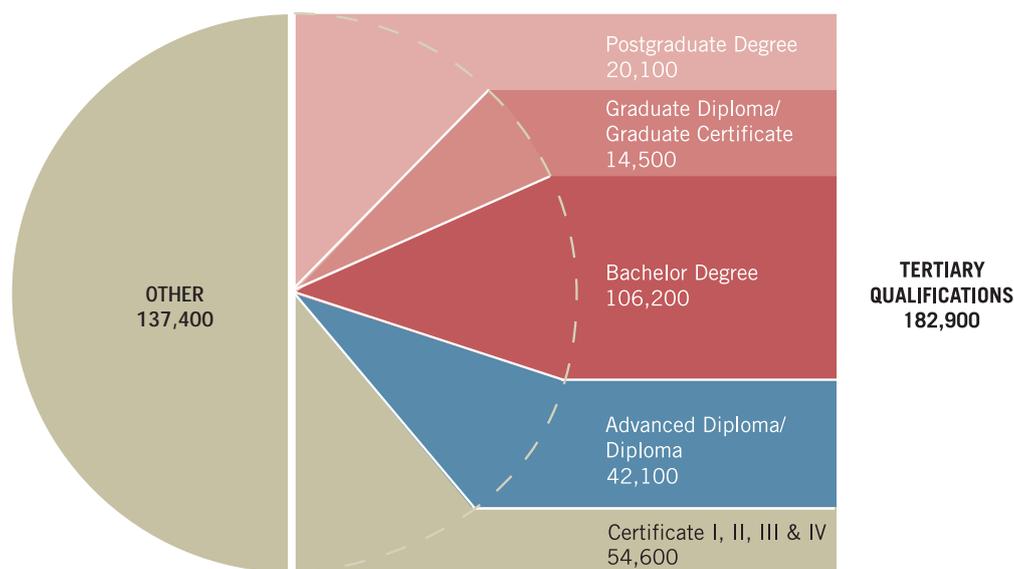
Pool of labour

The availability of skilled personnel is one of Australia's primary advantages as an offshoring analytics hub for the Asia-Pacific region. There are significantly more people employed in Australia's financial services centres (Sydney and Melbourne) than in either Singapore or Hong Kong.¹⁰

Australia's financial services workforce is highly educated with almost 50 per cent having a tertiary qualification. Looking specifically at post-graduate study, 10 per cent of the total financial services workforce undertakes study at this level. This ensures the development of high level conceptual, analytical and research skills within the Australian financial services workforce.

The following chart profiles the number of people working in the financial services industry by their level of qualification.

FINANCE & INSURANCE EMPLOYED PERSONS WITH POST-SCHOOL QUALIFICATIONS – MAY 2005



Total employed persons in finance and insurance in Australia as at May 2005: 374,900

Sources: Australian Bureau of Statistics, Category 6227.0, Education and Work, May 2005; Axiss Australia

Australia, relative to the size of its population, has a large pool of workers with high end specialist skills such as actuarial science. According to the Institute of Actuaries of Australia, the total number of actuaries who were members of the Institute in 2005 was 2,988,¹¹ a significant pool by global standards.

⁹ CFA Institute and Russell Reynolds Associates, 2005 Investment Management Compensation Survey, Axiss Australia. (Exchange rate as at 30 June 2005: AS\$1 = US\$0.7637, sourced from the Reserve Bank of Australia.)

¹⁰ Australian Bureau of Statistics; Singapore Department of Statistics; Hong Kong SAR Government's Census and Statistics Department; Axiss Australia.

¹¹ Institute of Actuaries of Australia, 2005 Annual Report, p.25.



Looking specifically at fully qualified actuaries (Fellows) and the next designation below (Associates), the following table compares the availability of actuarial skills between Australia, the UK and India, as at the last comparable date of 2004.

NUMBER OF QUALIFIED ACTUARIES IN SELECTED COUNTRIES – 2004

	Fellows	Associates
UK	7,386	429
Australia	1,332	635
India	132	118

Sources: Institute of Actuaries of Australia, 2004 Annual Report, p.21; Faculty of Actuaries and Institute of Actuaries UK, 2003-2004 Annual Report of the Councils, p.44; Actuarial Society of India, Membership Statistics website page, 2004.

Pipeline of labour

Australia's education system itself, is ranked second in the Asia-Pacific region and fourth in the world for meeting the needs of a competitive economy.¹²

A feature of the Australian education system is the collaboration between industry and educators which has seen professional credentials and competency standards globally recognised and linked to licensing.

Australia's universities and MBA programs are internationally competitive. Six Australian universities were named among the top 50 in the world by the prestigious British journal, *The Times Higher Education Supplement*, which ranked universities based on a survey of 2,375 academics in 94 countries.¹³ The top 200 universities came from just 31 countries. Taking into account its smaller population, the quality of Australia's higher education system is shown with 17 Australian universities named in the top 200, third highest after the USA (54) and the UK (24).

Looking at the pipeline of students that graduate with skills specific to analytics, in 2004 in Australia, there were over 267,000 students studying a Management and Commerce related discipline such as Accounting, Banking and Finance, Insurance and Actuarial Studies. Over 46,000 new students entered this field of study in Australia in 2004 and over 63,000 newly qualified graduates entered the workforce.¹⁴

GLOBAL ORIENTATION

Australia is ranked in the top ten countries in the world for its attitudes towards globalisation, flexibility and adaptability in the face of new challenges and openness to foreign ideas.¹⁵

Regionally, the Australian workforce combines high levels of academic qualifications with foreign language capabilities – a reflection of both Australia having the highest tertiary enrolment rates in Asia and the multicultural nature of Australian society.

Australia is the most multilingual country in the region¹⁶ with almost 855,000 people fluent in a major Asian language and 1.3 million fluent in a major European language (apart from English). Linguistically, Australia provides a gateway to Asia and a cultural link to Europe.

¹² IMD, *World Competitiveness Yearbook*, 2005.

¹³ The Times Higher Education Supplement, *World University Rankings*, November 2005.

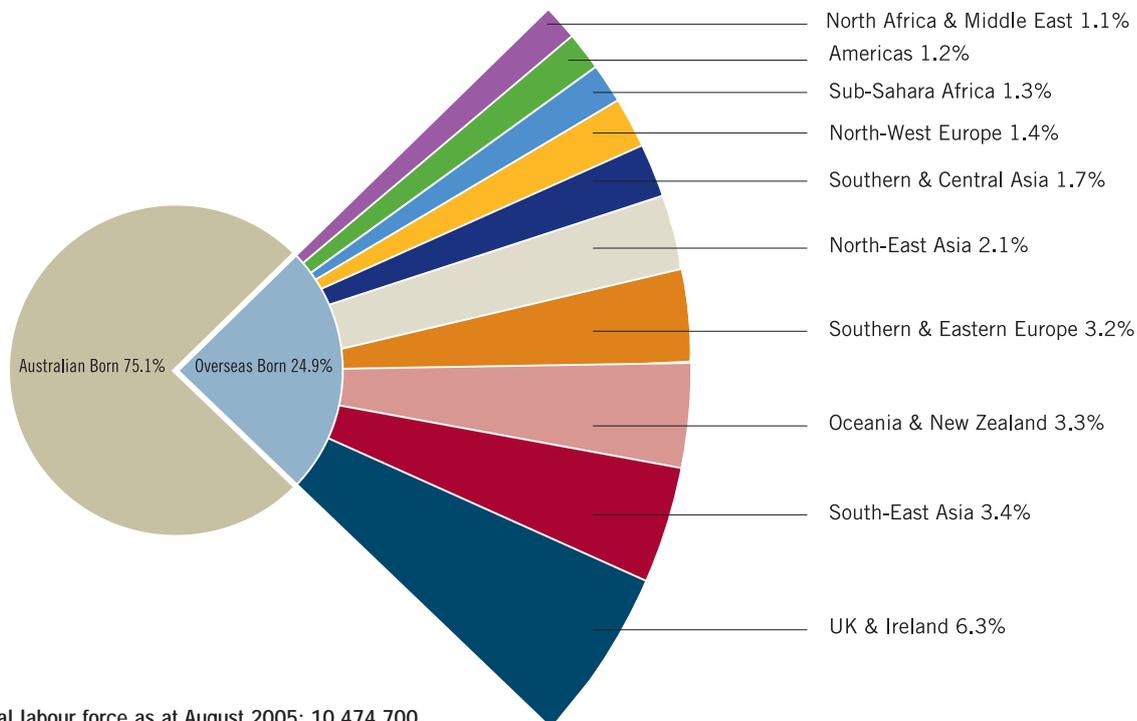
¹⁴ Department of Education, Science and Training, Australia.

¹⁵ IMD, *World Competitiveness Yearbook*, 2005.

¹⁶ Australian Bureau of Statistics, *Census of Population and Housing*, 2001.

The following chart provides a breakdown of Australia's labour force by country of birth.

AUSTRALIA'S LABOUR FORCE BY BIRTHPLACE



Total labour force as at August 2005: 10,474,700

Sources: Australian Bureau of Statistics, Category 6105.0, Australian Labour Market Statistics, October 2005; Axiss Australia

2.2 BUSINESS INFRASTRUCTURE COSTS

Another key determinant of the decision to offshore analytics functions is business infrastructure costs. Australian business infrastructure is world class and competitively priced in the global market. To make a phone call to the USA, during peak hours, it is cheaper to make the call from Australia than it is to make it from India, Hong Kong, Japan, Singapore, or the UK. The cost of electricity is also significantly cheaper than it is in the abovementioned countries.

INFRASTRUCTURE COST COMPARISONS

US\$ Costs For:	Australia	USA	UK	Japan	India	Singapore	Hong Kong
International Fixed Telephone^(a) (a 3-minute call to USA, peak hours, 2004)	0.420	0.450 ⁽¹⁾	0.650	1.480	0.480	0.690	1.150
Electricity for Industrial Clients^(a) (per kwh, 2004)	0.036	0.051	0.063	0.122	0.080	0.073	0.107
Office Occupancy Cost^(b) (per square foot per annum, August 2005)	40.5	53.7	119.1	131.1	56.4	33.7	75.9

(1) From USA to Europe

Sources: (a) Institute for Management Development, Switzerland, World Competitiveness Yearbook 2005; (b) CB Richard Ellis, Global Market Rents, August 2005 (using the most expensive city in each country, except the UK, where London City is used); Axiss Australia

Australian cities rank among the most competitively priced in the world. Office rental costs in the CBD of Sydney are significantly cheaper than in Tokyo, London, Hong Kong and New York and are close to 30 per cent cheaper than Mumbai. Office rental costs in Melbourne are priced even more competitively, at half the cost of Mumbai and around one fifth the cost of London.

2.3 STABLE BUSINESS ENVIRONMENT

Operational risk and corporate governance are also important to the decision to offshore analytics functions.

Australia as a business location, is as stable, if not more so, than North America and Europe. In Asia, Australia provides a secure, well-regulated environment with advanced adoption of global business practices and standards.

Australia is one of the oldest and most stable democracies in the world, with political and legal institutions which are recognised globally for their transparency, impartiality and robustness. Australia provides the relatively safe and secure environment necessary for the offshoring of high-value functions within the financial services industry.

ECONOMIC STABILITY

The stability and resilience of the Australian economy over the last decade has been commended by the International Monetary Fund¹⁷ and Australia has been ranked as the world's most resilient economy for four successive years by the Institute for Management Development (IMD).¹⁸ The strength of the Australian economy was again confirmed by the OECD in its *November 2005 Economic Outlook*, which forecasts an acceleration in 2006 and 2007 following growth of 2.6 per cent in 2005.¹⁹

RESILIENCE OF THE ECONOMY TO ECONOMIC CYCLES – 2005⁽¹⁾

The Higher the Score the Better

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Australia	7.64	21	Catalonia	5.59	41	Luxembourg	4.94
2	Denmark	6.84	22	Switzerland	5.53	42	Korea	4.92
3	Zhejiang	6.77	23	China	5.49	43	Colombia	4.91
4	Iceland	6.76	24	Spain	5.44	44	Philippines	4.76
5	India	6.74	25	Scotland	5.42	45	Sao Paulo	4.65
6	USA	6.67	26	South Africa	5.41	46	Bavaria	4.56
7	Norway	6.63	27	Czech Republic	5.41	47	France	4.53
8	Chile	6.62	28	Turkey	5.30	48	Slovenia	4.41
9	Malaysia	6.53	29	Japan	5.29	49	Greece	4.36
10	Ireland	6.45	30	Singapore	5.29	50	Ile-De-France	4.34
11	Canada	6.41	31	Sweden	5.26	51	Mexico	4.25
12	Thailand	6.31	32	Netherlands	5.25	52	Argentina	4.13
13	Taiwan	6.24	33	Belgium	5.20	53	Germany	3.92
14	Maharashtra	6.18	34	New Zealand	5.18	54	Romania	3.88
15	Estonia	6.11	35	Lombardy	5.16	55	Indonesia	3.82
16	Hong Kong	6.09	36	Slovak Republic	5.13	56	Poland	3.64
17	UK	6.07	37	Rhone-Alps	5.03	57	Italy	3.56
18	Israel	5.88	38	Jordan	5.02	58	Russia	3.49
19	Finland	5.84	39	Brazil	5.01	59	Portugal	3.17
20	Austria	5.65	40	Hungary	4.95	60	Venezuela	2.64

(1) In addition to 51 countries, the IMD includes 9 regional economies: Bavaria (Germany), Catalonia (Spain), Ile-de-France (France), Lombardy (Italy), Maharashtra (India), Rhone-Alps (France), Scotland, Sao Paulo (Brazil) and Zhejiang (China).

Sources: Institute for Management Development (IMD), Switzerland, *World Competitiveness Yearbook 2005 (60 economies)*; *Axis Australia*

¹⁷ International Monetary Fund (IMF), *World Economic Outlook Database*, September 2005.

¹⁸ IMD, *World Competitiveness Yearbook*, 2005.

¹⁹ OECD Economic Outlook No.78, November 2005.

OPERATIONAL RISK

In global comparisons of operational risk, Australia offers a secure and reliable environment that matches or exceeds destinations in North America and Europe.

OPERATIONAL RISK COMPARISONS

	Australia	USA	UK	Japan	India	Hong Kong	Singapore
World Competitiveness Yearbook 2005 Ranking^(a) in:							
Risk of Political Instability	2	16	22	26	45	29	10
Policy Direction of the Government	2	23	39	32	21	54	1
Justice	3	18	22	20	39	10	15
Competition Legislation	3	15	27	36	49	43	20
Transparency of Government Policy	4	18	48	51	39	25	3
Global Competitiveness Report 2004/05 Ranking^(b) in:							
Efficacy of Corporate Board	2	6	1	32	49	28	10
Regulation of Securities Exchanges	3	21	1	30	35	23	10
Business Costs of Corruption	4	18	7	34	54	11	10
Transparency International 2005 World Ranking^(c) in:							
Corruption Perceptions Index	9	17	11	21	88	15	5

Sources: (a) Institute for Management Development, Switzerland, World Competitiveness Yearbook 2005 (60 economies); (b) World Economic Forum, Switzerland and Harvard University, Global Competitiveness Report 2004/05 (104 countries); (c) Transparency International, Germany, Transparency International Corruption Perceptions Index (159 countries); Axiss Australia

REGULATION AND IP

Australia's legal framework was ranked third in the world and its financial institutions' transparency second, in 2005.²⁰ In addition, a recent survey conducted by independent ratings agency, GovernanceMetrics International (GMI), ranked Australia fourth in the world for its corporate governance standards. This survey covered 3,220 global companies from 23 countries.

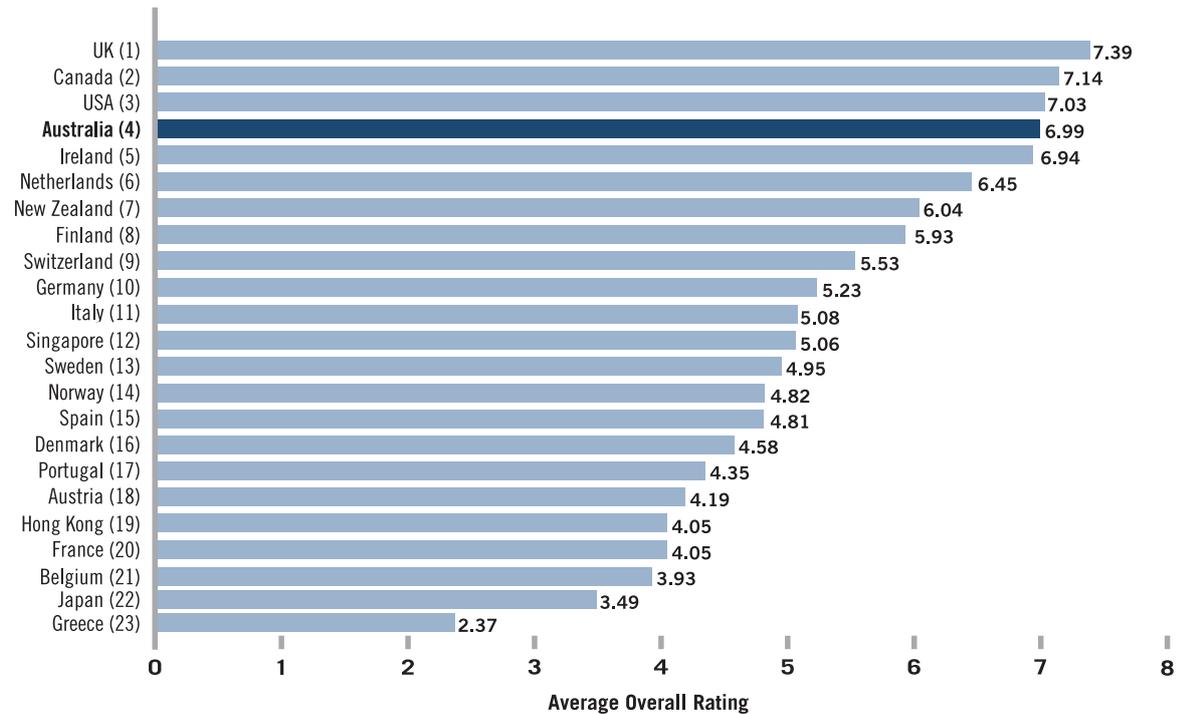
The strong regulatory environment in Australia means that Australia has developed key competencies in risk management, compliance and software development for the financial services industry, which cater for international regulatory requirements.

²⁰ IMD, World Competitiveness Yearbook, 2005.



Similarly, the quality of corporate governance in Australia is on par with that in the UK, USA and Canada. The following table demonstrates the similarities of business culture and practice between Australia and these countries.

GLOBAL CORPORATE GOVERNANCE RATINGS – 2005



The number in brackets refers to the country's world ranking.

Sources: GovernanceMetrics International, *Global Governance Ratings (23 countries)*, February 2005; *Axis Australia*

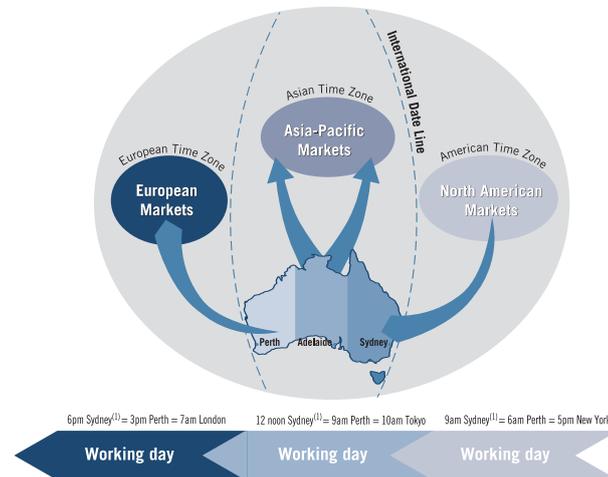
Australia is recognised as having one of the most effective and modern intellectual property rights regimes in the world, strongly influenced by and consistent with World Intellectual Property Organisation conventions. In terms of patent and copyright enforcement, Australia's regime is ranked well above countries such as the UK, France, Italy, Japan, Korea, Hong Kong and Taiwan.²¹

21 IMD, *World Competitiveness Yearbook*, 2005.

2.4 TIME ZONE ADVANTAGE

Australia's geographic location also creates strategic business advantages for global companies. Australia is the first major financial centre to open in the Asian time zone, providing a trading day that bridges the closing of the US and the opening of European markets. Global financial services firms are able to provide after-hours coverage for their US and European operations from Australia in a 'follow-the-sun' system. Workers in Australia start work before those in the US go home, have an early-start advantage over workers in Japan, China, Singapore and India and they are at the end of their working day when people in Europe start work.

AUSTRALIA'S TIME ZONE ADVANTAGE IN A 24-HOUR GLOBAL MARKET



(1) Australian Eastern Standard Time

Source: Axiss Australia

2.5 QUALITY OF LIFE

Australia's climate, low levels of pollution, recreational facilities, access to health care, natural environment, business and political stability, cost of living and overall lifestyle all contribute to the high quality of life in Australia which underpins the cultural resonance and affinity Australia shares with the UK, US and Canada.

For organisations seeking to establish operations that require their executives to re-locate, at least initially, to set corporate cultural tone or establish appropriate governance, Australia's quality of life and 'cultural fit' are powerful drawcards.

WORLDWIDE QUALITY-OF-LIFE INDEX – 2005

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Ireland	8.333	16	Netherlands	7.433	31	Chile	6.789	60	China	6.083
2	Switzerland	8.068	17	Japan	7.392	32	Mexico	6.766	61	Vietnam	6.080
3	Norway	8.051	18	Hong Kong	7.347	33	Barbados	6.702	62	Bahrain	6.035
4	Luxembourg	8.015	19	Portugal	7.307	34	Czech Republic	6.629	71	Indonesia	5.814
5	Sweden	7.937	20	Austria	7.268	35	Costa Rica	6.624	73	India	5.759
6	Australia	7.925	21	Taiwan	7.259	36	Malaysia	6.608	88	Iran	5.343
7	Iceland	7.911	22	Greece	7.163	37	Hungary	6.534	92	South Africa	5.245
8	Italy	7.810	23	Cyprus	7.097	38	Israel	6.488	98	Ukraine	5.032
9	Denmark	7.796	24	Belgium	7.095	39	Brazil	6.470	105	Russia	4.796
10	Spain	7.727	25	France	7.084	40	Argentina	6.469	106	Uzbekistan	4.767
11	Singapore	7.719	26	Germany	7.048	41	Qatar	6.462	107	Tajikistan	4.754
12	Finland	7.618	27	Slovenia	6.986	42	Thailand	6.436	108	Nigeria	4.505
13	USA	7.615	28	Malta	6.934	43	Sri Lanka	6.417	109	Tanzania	4.495
14	Canada	7.599	29	UK	6.917	44	Philippines	6.403	110	Haiti	4.090
15	New Zealand	7.436	30	South Korea	6.877	45	Slovakia	6.381	111	Zimbabwe	3.892

Score on a scale from 1 = lowest to 10 = highest

Sources: The Economist Intelligence Unit's quality-of-life index, The World in 2005; Axiss Australia

APPENDIX 1: Major Third-Party Service Providers

Company	Analytics Domains	Established	Full-time Employees	Delivery Sites
ARANCA	Equity and investment research analytics	2003	50	India
Evalueserve	Diversified analytics: – Equity research and M&A / corporate finance analytics – Corporate credit, structured finance and project finance analytics – Retail banking analytics	2000	850	India and China
GECIS	Diversified analytics: – Actuarial services – Equity research and M&A / corporate finance analytics – Corporate credit, structured finance and project finance analytics – Retail banking analytics – Strategic financial management support services	1997	800 (Relevant analytics division only)	India, China, Mexico, Hungary and Romania
Inductis	Retail and business banking analytics	2000	160	India
Office Tiger	Diversified analytics: – Equity research and M&A / corporate finance analytics – Real estate investment trust, securitisation and structured property analytics – Strategic financial management support services	1999	200 (Relevant analytics division only)	India and Sri Lanka
Progeon	Diversified analytics: – Equity research and M&A / corporate finance analytics – Corporate credit, structured finance and project finance analytics – Strategic financial management support services	2002	NA	India and Czech Republic

APPENDIX 2: Offshored Analytic Functions

EQUITY RESEARCH, CORPORATE FINANCE AND MERGERS AND ACQUISITIONS (M&A)

The offshoring or outsourcing (or both) of equity research and some corporate finance functions (listed below) by investment banks and securities firms is the most established area of the global analytics offshoring industry.

- Product updates and maintenance: updating of company models for company and sector update reports and updating of valuation models on an on-going basis.
- Support for 'stand alone' thematic reports: preparation of industry studies or cross-industry studies covering topical issues.
- Support to initiate coverage of new companies: for example, the creation of a 10-year historical database on earnings profiles.
- M&A stand alone valuation models: creation and support involved in stand alone valuation models for M&A deals.
- M&A synergy template management and due diligence checklist management: deal support for cost and revenue synergies arising from an M&A deal as well as management of the due diligence checklist.
- Report and presentation support: preparation of reports, presentation graphics, chart preparation for use in presentations to institutional investors and pitch book type material to corporate clients.

CORPORATE CREDIT, STRUCTURED FINANCE AND PROJECT FINANCE

At this stage limited to a handful of captive operations and outsourced service providers, offshored corporate credit, structured finance and project finance functions include:

- Document preparation services: includes pitch books, prospectuses (their related marketing materials) and client briefing documents and newsletters.
- Library, general research and knowledge management services: includes macroeconomic data collection, collation of statistical data, company / sector / economy tracking, library services and data base management of financial news providers.
- Market research for the fixed income, index linked, credit, interest rate swaps and asset-backed markets: preparation of investor guides, daily research, weekly commentary, monthly research and quarterly reports.
- Financial modelling: includes analysis of historical performance, current performance and future forecasts for business and cash-flow modelling. For example, valuation issues and advice on tax and working capital.
- Securitisation: credit quality analysis and performance analysis functions. Fair value reporting, filing reports, payment instructions and back-up service reporting.
- Project finance analytics: funding strategies, equity / debt modelling, economic and financial cash flow modelling and tax / legal accounting analysis.



RETAIL BANKING

Retail banking analytics are quite commonly performed in the analytics offshoring industry. They can be broken into four areas:

- Customers: includes segmentation analysis of customers, market research functions and marketing support.
- Products: includes modelling functions (e.g. attrition and propensity), profitability analysis, data mining and warehousing and process mapping.
- Distribution: includes branch location / branch closure and geo-mapping studies, workforce planning studies, optimisation algorithms and productivity monitoring.
- Risk and underwriting for credit cards, mortgages and personal loans: includes credit scoring, collection functions, disputes and fraud analytics as well as portfolio performance and delinquency analysis.

STRATEGIC FUNCTIONS

Services that support the activity of strategic units within organisations, including both financial management and business strategy units are also quite common in the analytics offshoring industry. Financial management analytic services that support the group finance and accounting, group treasury and group risk management functions within a financial services organisation include:

- Core finance and strategic decision support: preparation of financial accounting statements and management accounting reports.
- Capital management analytics: includes economic capital attribution and allocation analysis, business performance review and analysis support.
- Budgeting analytics: includes analysis of actual costs, revenue and profit targets against budgets and trend analysis.
- Risk management support: includes value-at-risk curves maintenance and analysis, credit risk portfolio monitoring, operational risk incidence database maintenance and management, and other related stochastic support.

Analytic functions which support the group strategy, group business intelligence and corporate development functions within a financial services organisation include:

- Strategic M&A and corporate development support activities such as: competitor analysis, industry sector analysis, valuation models updating and maintenance and comparable transaction reviews.
- Business intelligence and strategy development support activities: framework development support, total shareholder return analysis, thematic report preparation, best practice reviews and benchmarking studies.

ACTUARIAL SERVICES

Actuarial services are at the leading edge of analytics offshoring. While actuarial skills are used where necessary in the analytics functions outlined above, they refer here to functions which are specific to insurance (life and general) and pension and investment organisations. These include:

- Specific financial reporting and control functions: for example, embedded and appraisal valuations and statutory reporting.
- Actuarial reviews of products: for example, life insurance and general insurance products and pension or superannuation products.



Axiss Australia

Axiss Australia is the financial services division of Invest Australia, the Australian Government's inward investment agency. Axiss assists financial services institutions to establish and expand their activities in Australia.

Axiss produces newsletters, fact sheets, international data comparisons and reports on the Australian financial markets and business environment.

Axiss Australia's annual Benchmark Report provides key data and regional and global comparisons showing Australia's strengths as a global financial services centre.

Other information provided by Axiss includes: Executive Briefings and Data Files on specific sectors within the financial services industry and workforce and education in Australia.

All publications, research and charts can be accessed on www.axiss.gov.au and the website contains general information about the regulatory and business environment for financial services in Australia.

Useful Links

Axiss Australia

www.axiss.gov.au

Invest Australia

www.investaustralia.gov.au

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DISCLAIMER

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