



Appendices

About the National Centre for Social and Economic Modelling (NATSEM)

The National Centre for Social and Economic Modelling (NATSEM), an affiliated research centre of the University of Canberra, is one of Australia's leading economic and social policy research institutes, and is regarded as one of the world's foremost centres of excellence for microsimulation, economic modelling and policy evaluation.

NATSEM undertakes independent and impartial research, and aims to be a key contributor to social and economic policy debate and analysis in Australia and throughout the world through high quality economic modelling, and supplying consultancy services to commercial, government and not-for-profit clients. NATSEM research is founded on rigorous empirical analysis conducted by staff with specialist technical, policy and institutional knowledge.

Technical notes

Natural Disaster Areas

Fire affected areas have been selected as those areas where 10% or more of dwellings had major fire damage and where more than 30 dwellings were in the Census Collection District. Flood affected areas have been selected as those areas that had major flooding over the period January to February 2009, as defined by the Australian Government Bureau of Meteorology.

Out-migration

Out-migration is calculated as the number of Commonwealth Bank customers in the area who have filled in a change of address form over the period. The rate of out-migration is the out-migration divided by the population in the area. The Difference in the rate of number of people who moved from the area (the out-migration) is calculated as the difference in the rate of out-migration for disaster affected areas compared to non disaster affected areas. We then multiply this by 100 to provide some scaling. So a value of 100 shows no difference in out-migration between the neighbouring non-disaster affected areas and the disaster affected area. The calculation is:

$$\text{Difference} = \left(\frac{\text{Number of changed address}_{\text{Fire}}}{\text{Population}_{\text{Fire}}} \bigg/ \frac{\text{Number of changed address}_{\text{NonFire}}}{\text{Population}_{\text{NonFire}}} \right) * 100$$

Data Limitations

There are some limitations with the out-migration indicator, the main one being that for very short-term movements the person may use a redirection with the post office rather than changing their address with the bank. The other limitation is in that multiple movements are not captured. That is, those persons that had a different address to that which they had in January 2009 are considered to have migrated, regardless of how many times they may have moved. It is therefore possible that individuals may have moved a number of times since January 2009. Despite these limitations, the Commonwealth Bank change of address data provides an excellent snapshot of out-migration after a natural disaster, and this measure is considered to be robust for these purposes.

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References – Viewpoint™ Indicators

Indicator	Definition	Considerations that need to be understood
Pre-sample criteria	<ul style="list-style-type: none"> ➤ Account has had at least one transaction in the last 3 months (active) ➤ Customer has an account type associated with an income payment, be that salary, pension or benefit 	<ul style="list-style-type: none"> ➤ This ensures that the customer has at least one active account on which consumer transactions can be made if the customer chooses to do so
Sampling method for income	<ul style="list-style-type: none"> ➤ Comparison to ABS population projections (2008) ➤ Weighed by the following criteria <ul style="list-style-type: none"> – Age – Sex – LGA (Local Government Area) ➤ Sample volume determined to provide valid findings with any LGA ➤ Randomised within the sampling criteria to ensure representation and to avoid bias to specific customer groups 	<ul style="list-style-type: none"> ➤ Weighting the sample for representation of under 18's allows for dormant/minimal activity accounts ➤ Several LGAs do not produce a sample large enough for valid results
Electronic salary payments	<ul style="list-style-type: none"> ➤ Transactions into Commonwealth Bank accounts that either: <ul style="list-style-type: none"> – Have a designated 'salary' transaction code, OR – Have the word 'Salary', 'Wage' or 'Payroll' in the transaction description 	<ul style="list-style-type: none"> ➤ Any salary deduction that happens before the salary is paid into the account cannot be identified (Lease, Superannuation, split payments at salary receiver's request) ➤ Cash payments cannot be identified ➤ Consumers who receive salary from multiple payers are rolled up to a total salary amount ➤ Salary payments into the same account where multiple consumers own the account (e.g. husband and wife) are treated as individual payment recipients i.e. average salaries will be calculated based on the number of payments into the account, not the total salary into the account ➤ Bonuses or special payments/adjustments are considered as salary if they are identified as such ➤ The top 0.2% and the bottom 5% of salary transactions are trimmed from the measure to avoid extreme outliers that will otherwise affect the accuracy of the analysis
Salary recipients	<ul style="list-style-type: none"> ➤ The number of people who receive a salary paid into Commonwealth Bank accounts 	
Salary average	<ul style="list-style-type: none"> ➤ The average of total salaries paid into Commonwealth Bank accounts 	
Salary by industry sector	<ul style="list-style-type: none"> ➤ Employing organisations paying salaries into Commonwealth Bank customer accounts have been coded using nationally accepted classifications 	<ul style="list-style-type: none"> ➤ The available salary by industry data excludes payments to employees where the employer is unknown. It may also exclude payments made to contractors and workers who may be engaged by employers under temporary and other employment arrangements. ➤ For this reason, salary recipient data may be understated
Sampling methods for consumer perceptions data	<ul style="list-style-type: none"> ➤ Online survey of approximately 2,000 consumers per month nationally aged 18-69 	<ul style="list-style-type: none"> ➤ For this report, supplementary questions probing respondents views about the impact of the recent natural disasters were added to the June 2011 consumer sentiment survey (see notes below for further information)

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Consumer sentiment about the economy: Each week, 500 consumers complete a web-based survey¹ which comprises questions on brand recognition, advertising effectiveness and consumer perceptions of the economy. The consumer perception questions ask respondents about their perceptions of the economy and how they feel it affects and is likely to affect their financial circumstances, decisions and behaviours.

Commonwealth Bank customer database: This is a database of over ten million Australian bank accounts, which is used as a basis for analysis in this report. To ensure that analysis is performed on a sample that is reasonably representative of the Australian population, a small subset of this database has been chosen (1.3 million customers) to reflect the age and sex distribution of the Australian population taken from the Australian Bureau of Statistics (ABS) population projections for 2009². The data are anonymised.

Salaries: Wage and salary payments into Australian bank accounts are flagged as such for tax purposes. Commonwealth Bank can thus identify how much of the incomings into bank accounts are for wages and salaries. It should be noted that data on salaries paid into Commonwealth Bank accounts will, in almost all circumstances, not reflect total earnings: employers almost always deduct taxes, private health insurance, salary packaging items and so forth from an employee's salary before placing the remainder into their bank account. A different sample is used to estimate average salaries for each month – any account that does not receive at least one salary payment that month is excluded from the sample.

Newstart/Youth Allowance: As with salaries, pensions and allowances from Centrelink, including Newstart allowances, are flagged as such when they are paid into bank accounts, allowing Commonwealth Bank to identify the number of people receiving Newstart Allowance. Newstart Allowance is an income support payment for people aged 21-64 who are seeking work. Potential recipients are subject to an income test, an assets test and a liquid assets test on their own and their partner's income and assets, which mean that many people who are unemployed may not be entitled to Newstart. It also means that there may be eligible recipients who are engaged in some form of employment. Also, Commonwealth Bank's Newstart figures include Youth Allowance – a payment to youth jobseekers (aged under 21) and youth students (aged under 25). These payments may be subject to a parental means/asset test as well as a personal and spousal means test. Some 18-24 year olds who are receiving Newstart/Youth allowance will be full-time students rather than unemployed. However, Centrelink data (FaCHSIA, 2007)³ suggest that after full-time students are excluded, recipients of Newstart/Youth Allowance who are jobseekers substantially outnumber recipients in older age groups.

Definition of Disaster: As per the federal government definition, a disaster is an event that results in serious disruption to community life, death, injury and property damage which exceeds the day-to-day capacity of the statutory authorities and which necessitates the mobilisation of resources beyond those normally available to these authorities⁴.

Disaster Income Recovery Subsidy: As outlined on page 9 of the report, the Disaster Income Recovery Subsidy is received in Commonwealth Bank accounts as part of the Newstart/Youth Allowance payments. The Disaster Income Recovery Subsidy is provided to employees, small business persons or farmers who have lost their income as a direct result of a disaster. It is equivalent in value to the maximum rate of the Newstart/Youth Allowance, with assistance offered to recipients for an initial period of 13 weeks⁵.

Assessing impact of natural disasters: The impact of natural disasters on the regions in which they occur, on the relevant state and then at the national level has been assessed by indexing data to one of three baselines:

1. State to national where the national average is the baseline – used to illustrate the impact of the disaster on state performance and in turn performance relative to the nation overall.
2. Region to state where the state average is the baseline: to assess the magnitude of change within the disaster region. This is particularly relevant to regions which have experienced multiple disasters as it shows the relative impact of the disasters independent of factors external to the region (ie disasters which occurred in different regions of a state at the same time as was the case in Queensland in 2011) illustrate the impact of a regional disaster on state performance.
3. Disaster region to disaster region where a specific point in time is the baseline: to illustrate the impact that disaster may have had on state performance and in turn its performance relative to nation.

From the broad disaster affected regions specific Statistical Local Areas (SLA) have been selected for this analysis based on an indexed derived by comparing 'Total Newstart' levels for the disaster affected regions calculated as follows:

$$\frac{\text{Proportion of population receiving Newstart (Total Newstart) in the disaster}}{\text{affected region}} * 100 \geq 150$$

¹ Each month 2,000 surveys are conducted with the exception of December and January when 1,000-1,500 are conducted.

² ABS (2008), Population Projections, Cat. NO. 3220.0, Canberra

³ FaCHSIA (2007), Income Support Customers: a statistical overview, Statistical Paper No. 4, Canberra

⁴ Australian Government Attorney-General's Department. Weblink <http://www.disasters.ema.gov.au/Browse%20Details/DisasterEventDetails.aspx?DisasterEventID=2718>

⁵ Australian Government Disaster Assist, Weblink: <http://www.disasterassist.gov.au/www/disasterassist/disasterassist.nsf/Page/RWPB029AADA4689E490CA2577E6007BA0A8>

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Data we have used

Commonwealth Bank processes around 45% of the nation's electronic transactions, giving us access to a rich pool of data. The Viewpoint Report which includes these Appendices (Report) has been prepared using this data, together with additional research. All data is anonymised and used in accordance with Commonwealth Bank privacy policies and applicable privacy laws.

Important information

The Economic Vitality Report including these Appendices (Report) is produced by Commonwealth Bank of Australia ABN 48 123 123 124 AFSL 234945 and NATSEM PTY LTD ABN 50 095 483 686 and is based on information available at the time of publishing. We believe that the information in this Report is correct and any opinions, conclusions, recommendations or other views expressed are reasonably held or made as at the time of its compilation, but no warranty is made as to accuracy, reliability or completeness. Any projections and forecasts contained in this Report are based on a number of assumptions and estimates and are subject to contingencies and uncertainties. Commonwealth Bank of Australia and NATSEM do not represent or warrant that any of these projections or forecasts, or any of the underlying assumptions or estimates, will be met. To the extent permitted by law, neither NATSEM, Commonwealth Bank of Australia nor any of its subsidiaries accept liability to any person for loss or damage arising from the use of this Report. The Report has been prepared for information purposes only without taking account of the objectives, financial situation or needs of any particular individual. For this reason, any individual should, before acting on the information in this report, consider the appropriateness of the information, having regard to the individual's objectives, financial situation and needs and, if necessary, seek appropriate professional advice. This Report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Commonwealth Bank of Australia or its subsidiaries to any registration or licensing requirement within such jurisdiction. All material presented in this Report, unless specifically indicated otherwise, is under copyright to the Commonwealth Bank of Australia Group. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior written permission of the appropriate entity within the Commonwealth Bank of Australia Group. Customer information is collected, used and disclosed in accordance with the Commonwealth Bank Group Privacy Policy statement, the National Privacy Principles and relevant industry privacy codes. For more information visit commbank.com.au/privacy.