United States Economic Update

National Australia Bank

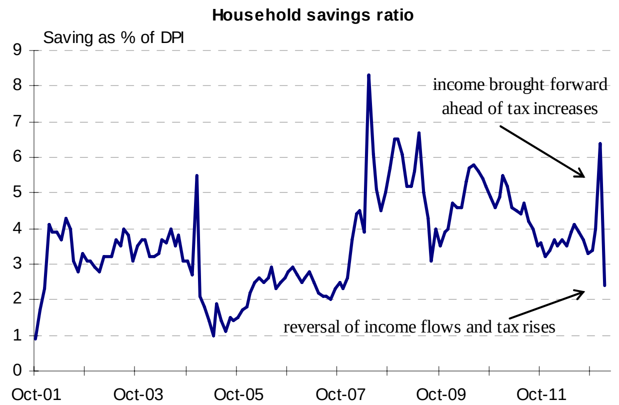
- **Economic (GDP) growth appears to have resumed in March quarter after December quarter lull.**
- **We are expecting GDP growth of 2.2% in 2013 and 2.9% in 2014. Growth to be supported by some fading headwinds, growing business investment and continued recovery in the housing market. Federal fiscal policy will be a drag.**
- **Any tightening in monetary policy is a long-way off. When the Fed funds rate does start to rise we expect that it will move towards a rate of 4% in the long-term (the 'equilibrium' rate).**

Economic Overview

Economic indicators available for the March quarter are pointing to a resumption of GDP growth following an essentially flat December quarter (the small decline in the Advance GDP estimate has been revised away). In particular, the ISM manufacturing and non-manufacturing surveys are consistent with above trend growth.

Consumer spending growth slowed in December and January (following a large increase in November post-Hurricane Sandy). However, this was still a positive outcome given the hit to incomes from the January tax increases. Household disposable income fell 4.0% mom in January reflecting the tax increases as well as the fact that some income was brought forward (out of 2013) into 2012 to escape the tax rises. This has led to a big swing in the household savings ratio as households smooth out the impact of these income swings on their consumption.

Savings cushioning impact of income swings on consumption

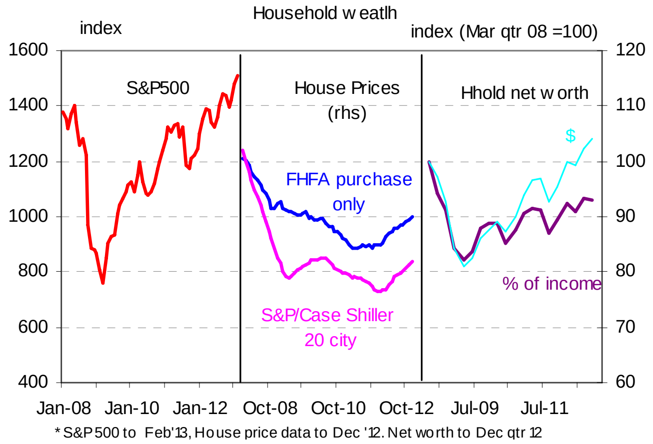


Source: Bureau of Economic Analysis

The resilience in consumer spending looks to have continued into February as motor vehicle sales rose in the month. However, household spending will also come under pressure from the increase in petrol prices in February although early data for March suggests that this has been partially reversed. Delays in issuing tax refunds may also have a temporary affect on spending.

A positive underlying support for consumption will come from improvements in household wealth given the upwards trend in equity prices coupled with the continuing modest recovery in house prices. The Flow-of-Funds data released last week for the December quarter showed household net worth increased by $1.2 trillion (or 1.8% qoq) in the December quarter, with $0.5 trillion coming from an increase in housing assets. With both house prices and the equity market trending up, household wealth is set to rise further.

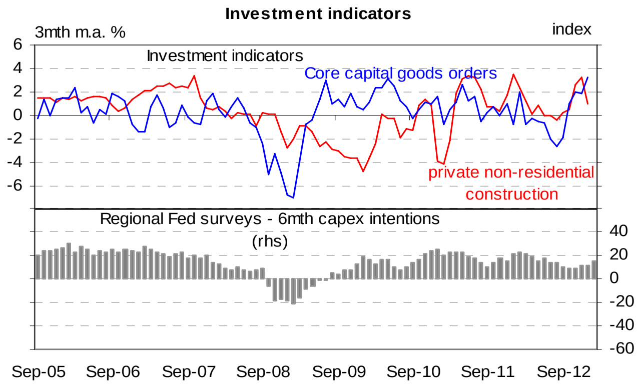
Wealth on an upwards trend, supporting consumption



Sources: Thomson Reuters, FHFA, S&P/Case Shiller, Federal Reserve

Housing investment continues to show strong growth, with construction indicators trending up supported by rising new home sales and low levels of inventory. Moreover, the resumption in business investment growth that occurred in the December quarter looks to have continued into 2013. There was a very large increase in core (ex defence and aircraft) capital goods orders in January; as a result orders were higher than (core) shipments for the first time since May 2012. Capex intentions measured in the Fed regional surveys also increased in February.

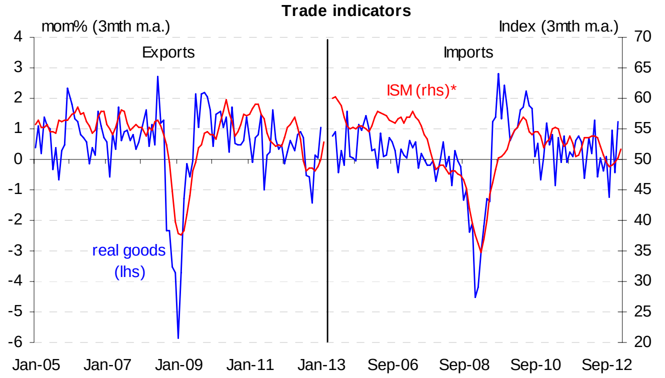
General improvement in business investment indicators



Source: Sources: Census Bureau, Philadelphia, Richmond, Dallas, Kansas City and New York federal reserves

Trade flows are also showing tentative signs of turning around. While real exports fell in January, trade data are very volatile and are best looked at on a trend basis (see chart below). Despite the fall, the level of exports in January was still higher than the average level in the December quarter. The ISM surveys also suggest a turnaround in trade flows in recent months.

Trade flows turning around

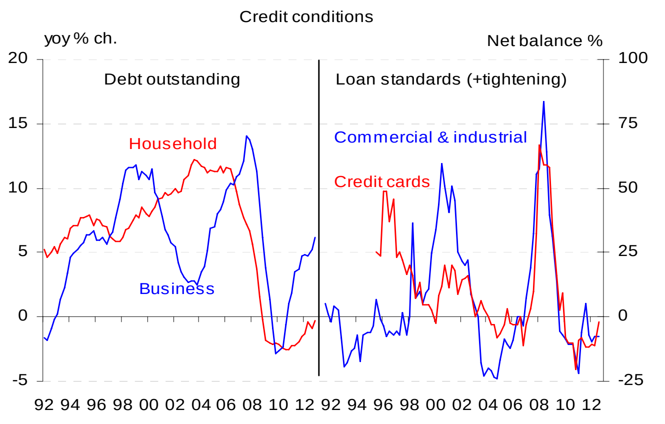


*Average of ISM manufacturing/non-manufacturing surveys using goods/serivces shares.

As with the rest of the economy, the slow recovery continues in the labour market. The unemployment rate fell 0.2 percentage points to 7.7% in February although this largely reflected a fall in the participation rate. That said, growth in non-farm employment (not used to calculate the unemployment rate) was solid with over 200,000 jobs created, average hours worked rose and initial jobless claims have also fallen recently. Overall, the picture is one of continued, albeit gradual, healing in the labour market.

Looking beyond the current quarter, growth will be assisted by some fading headwinds. State and local government spending is stabilising, the pace of household balance sheet repair will slow, and credit conditions continue to improve. The latter factor, coupled with still high corporate profits, will support business investment. Credit to the business sector continues to grow, while household credit recorded its largest quarterly increase in over four years, consistent with a slowdown in household deleveraging. The Fed's Senior Loan Officer Opinion survey also continues to show a general easing in credit standards.

Credit conditions continue to improve



Source: Federal Reserve (Flow of Funds and Senior Loan Officer Opinion Survey)

The recovery in housing construction will continue given low stock levels, a faster pace of household formation and low interest rates. Moreover, the world economy is likely to improve over 2013 and into 2014, providing a boost to exports and monetary policy will remain very stimulatory through 2013 (and beyond).

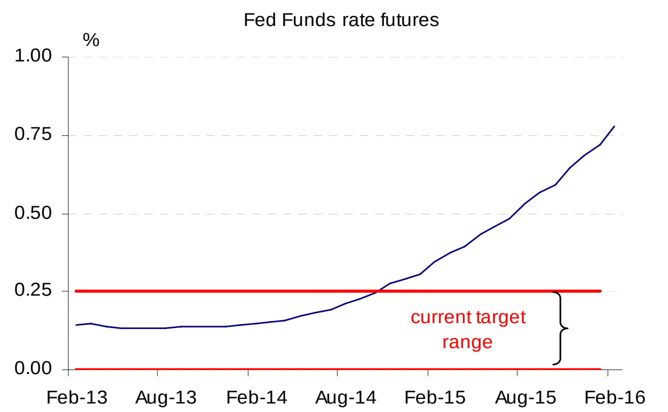
Federal fiscal policy will, however, be a drag on growth in 2013. The automatic budget cuts under the 'sequester' came into effect on 1 March adding to the fiscal restraint. Our forecasts had assumed a similar level of fiscal drag in 2013 as in 2012. However, with the sequester going through in full Federal fiscal drag will be a little bigger this year than last. It is still possible that some of the budget cuts will be pushed back (or their composition changed). On another budget issue, it looks increasingly unlikely that there will be a Government shutdown at the end of March as agreement on a continuing resolution to fund the government is expected. That would leave the Federal debt limit as the last major fiscal risk for the year (it will need to be increased again around August).

As a result, over 2013 we expect the recovery to continue, with the quarterly pace of growth over the year stronger than in 2012. Given this, we expect GDP growth of 2.2% in 2013 and 2.9% in 2014. These forecasts are unchanged from last month – the greater fiscal drag has been offset by a slightly improved base from the December quarter revisions, as well as an improved composition of activity within that quarter.

Future US interest rates – the 'equilibrium' rate

In last month's US Economic Update we took a look at future monetary policy settings and when the current ongoing easing (through QE3) may end as well as when the Fed might actually start to tighten policy. The latter is a long way off (we don't expect the Fed Funds rate to start to rise until at least late 2015). As can be seen in the chart below, this is the market view as well, with the futures curve for the Fed Funds rate pointing to still very low rates in early 2016.

Fed funds rate very low for several years…where will it end up?



Source: Bloomberg

When rates do start to rise, the next question will be at what level will they eventually settle (barring another downturn or policy mistakes)? The point at which they might be expected to settle is often called the natural or equilibrium interest rate. This is the interest rate that is consistent with the economy operating at its potential with no inflationary (or deflationary) pressures. The term can be applied to the current moment or in a longer-term sense which strips out any temporary business cycle factors. For this discussion we are interested in the latter.

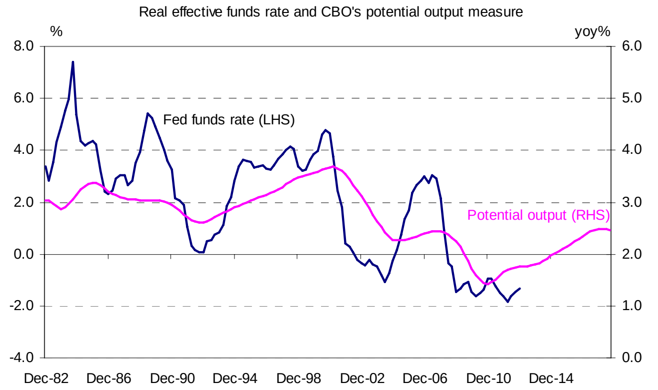
The natural interest rate cannot be observed and so has to be estimated or inferred in some way. It is also a 'real' concept; that is, the nominal interest rate less the inflation rate.

Growth theory suggests that the natural rate is a function of productivity growth, population growth and household savings preferences. The first two factors clearly relate to potential GDP and a fall in potential GDP will lower the natural rate. The third reflects the extent to which society prefers to spend now or save and spend in the future (this also affects potential GDP through its impact on the level of capital investment). Other factors that have been cited as affecting longer term interest rates include fiscal and current account deficits, the rate of return on capital and central bank credibility.

A common finding of model based estimates of the natural rate of interest is that it is not fixed but varies over time. For example, Laubach and Williams (2003) estimated the equilibrium rate in mid-2002 was 3% but that it had varied between a little over 1% (early 1990s) to over 5% (late 1960s)[1]. Wu (2005) found a range of between 2 and 4%[2] (and estimated it stood at 2.25% in early 2005). It is fair to say there is some scepticism of such estimates as they are very sensitive to the model specifications and any estimate made today could be substantially revised as the statistician revises data over time.

In fact, some researchers have suggested that the historical mean of the real rate is a more accurate estimate of the equilibrium rate than is the model–based estimate.[3] This raises another question as to what the appropriate time frame is. In the chart below we have plotted the Fed Funds rate since the early 1980s together with the CBO's estimate of potential GDP. There is a downward shift in both indicators, although the downward move in the Fed funds rate is exaggerated as at the start of the period the Fed was pursuing very tight monetary policy to rid the country of persistently high inflation while today we are still in an ultra-loose monetary policy environment.

Decline in Fed Funds Rate and Potential GDP since early 1980s



Source: Federal Reserve (Thomson Reuters Datastream), CBO, NAB. Real Fed Funds rate derived using the effective funds rate and annual core PCE inflation.

One way to calculate an appropriate historical average is to choose a period where the policy environment (low inflation) is similar, and at which the start and end points are at a reasonably similar stage of the economic cycle (so that on average over the period actual output is close to potential). Two such periods are March 1986 to December 2004 and June 1997 to December 2004. The average of the real Fed funds rate over the first period was around 2½% and over the second period 2%.

This is broadly consistent with Thornton (2010) who states that "Most economists believe that the long-run equilibrium real interest rate is in the neighborhood of 2 to 3 per cent"[4] (but could be lower during downturns).

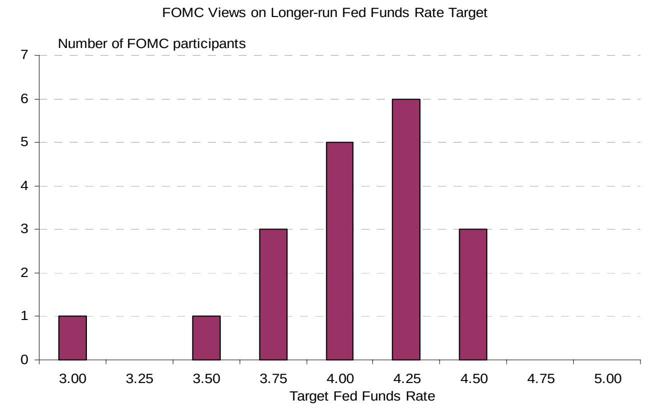
As noted above, there has been a slowdown in potential growth rate of the U.S. economy. The major factors behind this are demographic changes. Population growth has slowed and the proportion of the working age population working or looking for work (the participation rate) – which rose over the 1960s through to the 1990s – is now declining. This pattern reflects the end to rise in female participation rate in the late 1990s, an increasing proportion of young adults delaying entry to the workforce to study and population aging (as workers 55 or more years old have the lowest participation rate). The impact of the recession on capital investment has also had an effect on the economy's growth potential although this is starting to unwind.

This changing landscape is reflected in Congressional Budget Office (CBO) estimates of potential GDP growth, which have moved from around 3% over the 1970s to 1990s to a bit over 2% in the 2000s. The CBO expects this lower potential growth rate to be maintained over the next decade.

The slowdown in growth potential suggests that that natural interest rate has moved to the bottom of the 2-3% range cited by Thornton. There are concerns that the absence of any new big technological revolutions means that the potential growth rate will fall further (due to a decline in productivity growth). [5] While such scenarios appear unduly pessimistic they suggest there is some downside risk, although, this may be counter-balanced by large, and likely continuing, fiscal deficits. To sum up, a real equilibrium interest rate of 2%, or perhaps a bit lower, looks reasonable.

What does this mean for nominal interest rates? A natural starting point is to look at the expectations of those that actually set the target Fed Funds rate and who are responsible for managing inflation – the members of the Fed's FOMC committee. The majority view is that the Fed Fund's rate in the longer-term will be around 4 to 4¼%, with more members seeing some downside rather than upside.

Fed sees Fed Fund's rate of around 4-4¼% in longer-term



Source: Federal Reserve

With FOMC members also expecting - consistent with their longer-term objective - inflation of around 2.0% p.a. this equates to a real (i.e. after inflation) interest rate of around 2-2¼% which is around our view; albeit slightly higher. Is a 2% inflation rate going forward reasonable? There are certainly tail risks of higher inflation given that the Fed is in unchartered waters regarding how to exit from its QE strategy. Upside risks are also implied by the Fed's aim of holding interest rates low for longer than would normally be the case as the economic recovery strengthens. However, at this stage, the Fed is being backed to hold the line on inflation.

This can be seen in the chart below which shows that inflation expectations have been quite stable since the late 1990s, as the

[1] As cited in Williams J., The Natural Rate of Interest, FRBSF Economic Letter, Number 2003-32

[2] Wu T., Estimating the "Neutral" Real Interest Rate in Real Time, FRBSF Economic Letter, Number 2005-27

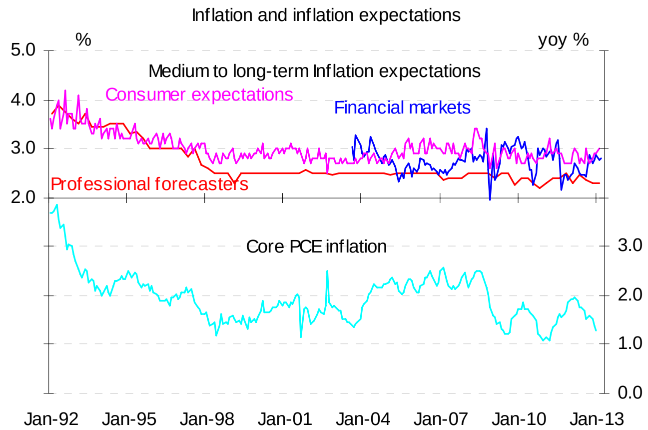
[3] Clark T., Kozicki S., Estimating Equilibrium Real Interest Rates in Real Time, RWP04-08, Federal Reserve Bank of Kansas, p4

[4] Thornton, D., Which Comes First: Inflation or the FOMC's Funds Rate Target?, Economic Synopses, Federal Reserve Bank of ST Louis, No 25, 2010

[5] See Gordon R.J., Is US economic growth over? Faltering innovation confronts the six headwinds, CPER Policy Insight No. 63

fall in inflation to a new, lower, level was confirmed. Core PCE inflation between the December quarter 1994 and the December quarter 2012 grew at an annual average rate of 1.8%, while the headline rate was a little higher at 2.0%. It has been below this mark in recent years reflecting the large unused capacity because of the recession, but as the recovery proceeds we expect that it will start to move back towards 2.0%.

Inflation expectations suggest Fed's 2% expectation reasonable



Source: 'Financial markets' expectations measure by the 5yr, 5yr forward rate (Federal Reserve), Consumer expectations measured by Thomson Reuters/Uni of Michigan Consumer Survey's median 5yr expected inflation, Professional forecasters expectations measured by Philadelphia Federal Reserve Survey of Professional Forecasters 10yr expectations (for CPI). PCE inflation data are from the Bureau of Economic Analysis.

Putting this together suggests that in the longer-term the Fed funds rate might settle at around 4%. There might be some downside risk to this from concerns over how low the potential GDP growth rate may fall, but this is balanced by possible upside risks from continuing fiscal pressures and to inflation.

antony.kelly@nab.com.au

US Economic & Financial Forecasts

	Year Average Chng %				Quarterly Chng %									
					2012		2013				2014			
	2011	2012	2013	2014	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
US GDP and Components														
Household Consumption	2.5	1.9	1.9	2.6	0.4	0.5	**0.4**	**0.5**	**0.6**	**0.6**	**0.6**	**0.7**	**0.7**	**0.7**
Private fixed investment	6.6	8.5	7.8	9.0	0.2	2.7	**1.6**	**2.4**	**2.4**	**2.3**	**2.2**	**2.1**	**2.0**	**1.9**
Government Spending	-3.1	-1.7	-2.0	-0.8	1.0	-1.8	**-0.3**	**-0.7**	**-0.4**	**-0.3**	**-0.1**	**-0.1**	**-0.1**	**-0.1**
Inventories*	-0.2	0.1	0.1	0.0	0.1	-0.4	**0.2**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Net Exports*	0.1	0.0	0.1	-0.1	0.1	0.1	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Real GDP	**1.8**	**2.2**	**2.2**	**2.9**	**0.8**	**0.0**	**0.7**	**0.6**	**0.7**	**0.7**	**0.7**	**0.7**	**0.7**	**0.7**
US Other Key Indicators (end of period)														
PCE deflator-headline		(yoy%)												
Headline	2.5	1.6	1.7	2.0	0.4	0.4	**0.4**	**0.4**	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**	**0.5**
Core	1.7	1.5	1.4	2.0	0.3	0.2	**0.3**	**0.3**	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**	**0.5**
Unemployment Rate (%)	8.7	7.8	7.5	7.1	8.0	7.8	**7.8**	**7.7**	**7.6**	**7.5**	**7.4**	**7.3**	**7.1**	**7.1**
US Key Interest Rates (end of period)														
Fed Funds Rate	0.25	0.25	0.25	0.3	0.25	0.25	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**
10-year Bond Rate	1.98	1.72	2.50	3.25	1.72	1.72	**2.15**	**2.50**	**2.50**	**2.50**	**2.50**	**2.75**	**3.00**	**3.25**

Source: NAB Group Economics

***Contribution to real GDP**

Global Markets Research

Peter Jolly
Global Head of Research
+61 2 9237 1406

Australia

Economics

Rob Henderson
Chief Economist, Markets
+61 2 9237 1836

Spiros Papadopoulos
Senior Economist
+61 3 8641 0978

David de Garis
Senior Economist
+61 3 8641 3045

FX Strategy

Ray Attrill
Global Co-Head of FX Strategy
+61 2 9237 1848

Emma Lawson
Senior Currency Strategist
+61 2 9237 8154

Interest Rate Strategy

Skye Masters
Head of Interest Rate Strategy
+61 2 9295 1196

Rodrigo Catril
Interest Rate Strategist
+61 2 9293 7109

Credit Research

Michael Bush
Head of Credit Research
+61 3 8641 0575

Ken Hanton
Senior Credit Analyst
+61 2 9237 1405

Equities

Peter Cashmore
Senior Real Estate Equity Analyst
+61 2 9237 8156

Jenny Khamphet
Senior Real Estate Equity Analyst
+61 2 9237 9538

New Zealand

Stephen Toplis
Head of Research, NZ
+64 4 474 6905

Craig Ebert
Senior Economist
+64 4 474 6799

Doug Steel
Markets Economist
+64 4 474 6923

Mike Jones
Currency Strategist
+64 4 924 7652

Kymberly Martin
Strategist
+64 4 924 7654

UK/Europe

Nick Parsons
Head of Research, UK/Europe,
and Global Co-Head of FX Strategy
+ 44 207 710 2993

Gavin Friend
Markets Strategist
+44 207 710 2155

Tom Vosa
Head of Market Economics
+44 207 710 1573

Simon Ballard
Senior Credit Strategist
+44 207 710 2917

Derek Allassani
Research Production Manager
+44 207 710 1532

Group Economics

Alan Oster
Group Chief Economist
+61 3 8634 2927

Tom Taylor
Head of Economics, International
+61 3 8634 1883

Rob Brooker
Head of Australian Economics
+61 3 8634 1663

Alexandra Knight
Economist – Australia
+(61 3) 9208 8035

Vyanne Lai
Economist – Agribusiness
+61 3 8634 0198

Dean Pearson
Head of Industry Analysis
+(61 3) 8634 2331

Robert De Iure
Senior Economist – Property
+(61 3) 8634 4611

Brien McDonald
Economist – Industry Analysis
+(61 3) 8634 3837

Gerard Burg
Economist – Industry Analysis
+(61 3) 8634 2778

John Sharma
Economist – Sovereign Risk
+(61 3) 8634 4514

James Glenn
Economist – Asia
+(61 3) 9208 8129

Tony Kelly
Economist – International
+(61 3) 9208 5049