



# Reserve Bank of New Zealand Analytical Notes

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The macroeconomic impact of the Rugby  
World Cup

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## INTRODUCTION

Rugby World Cup 2011 kicks off in a few weeks. The tournament will be a significant event for New Zealand. The Reserve Bank's main interest is in how the tournament affects domestic economic activity, capacity pressures and New Zealand's national accounts. This article aims to outline the Reserve Bank's current estimates of these impacts and to identify where some of the key uncertainties lie.

The tournament is expected to attract a total of 95,000 overseas visitors, with these visitors forecast to spend \$700 million in New Zealand. Domestic spending on the tournament is also likely to be significant, although some of this will be at the expense of spending on other items. If incomes increase as a result of the domestic and international spending in New Zealand, that would increase domestic spending even further over time.

As with other major international sporting events, even after the final whistle there is still likely to be considerable debate around the nature and size of any medium-term gains.<sup>1</sup> Factors like the operational costs of hosting and running the tournament, the capital costs of associated recreational infrastructure, the extent to which the tournament crowds out other domestic and foreign spending, and the imported component of additional spending must be taken into account, along with any possible longer-term gains in visitor numbers, when assessing the overall economic impact of the tournament.

The Reserve Bank is most interested in understanding the way in which the tournament is affecting macroeconomic data and disentangling the temporary fluctuations from the trend way in which the economy is evolving. If, for example, GDP over the next couple of quarters happened to be substantially boosted by the direct effects of tournament spending, the Bank would want to be able to distinguish between those effects, largely one-off in nature, and the persistent accumulation of pressure on resources.

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1. See Horwarth Asia Pacific (2006) and Deloitte (2008) for some initial estimates of this impact.



## THE IMPACT OF THE RUGBY WORLD CUP ON TOURISM

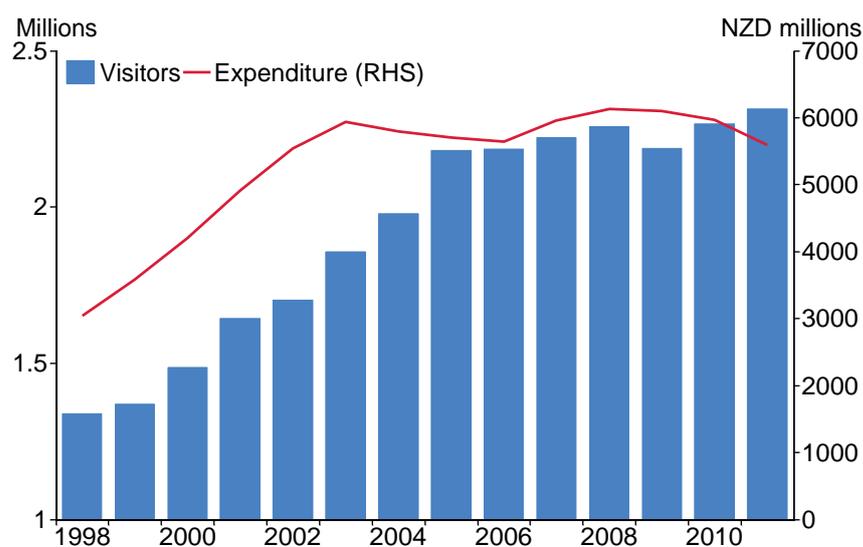
The Rugby World Cup is occurring at a time when tourism sector activity is relatively subdued. A persistently high New Zealand dollar has hampered the global competitiveness of New Zealand as a tourist destination, reducing the number of visitors from Asia, North America and Europe. The international recession has further exacerbated the decline in visitor numbers from these regions.

By contrast, tourist numbers from Australia have picked up significantly over the past decade. Following a sustained period of strong growth, Australia's economy was relatively resilient during the international recession. In addition, the Australian dollar has increased substantially against a number of currencies, making offshore tourism less costly for Australians. As a result, total outbound Australian tourism has picked up steadily.

The pick-up in Australian visitor numbers has offset the decline from other areas (figure 1). However, Australian visitors typically stay for a shorter period and spend less during their stay, so that the rise in total spending by Australian tourists has not offset the decline in tourist spending from typically higher-spending areas such as North America, Europe and Asia. Exports of travel services have steadily and substantially declined as a portion of total output over recent years (figure 2).

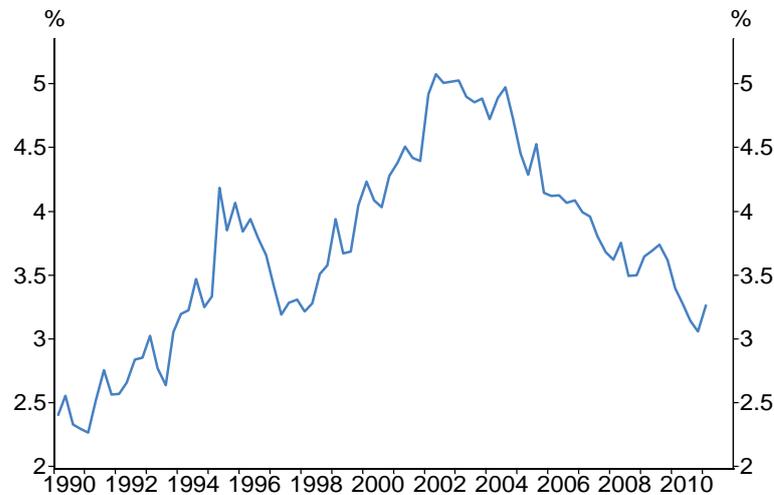
**FIGURE 1**

### ANNUAL VISITOR ARRIVALS AND EXPENDITURE



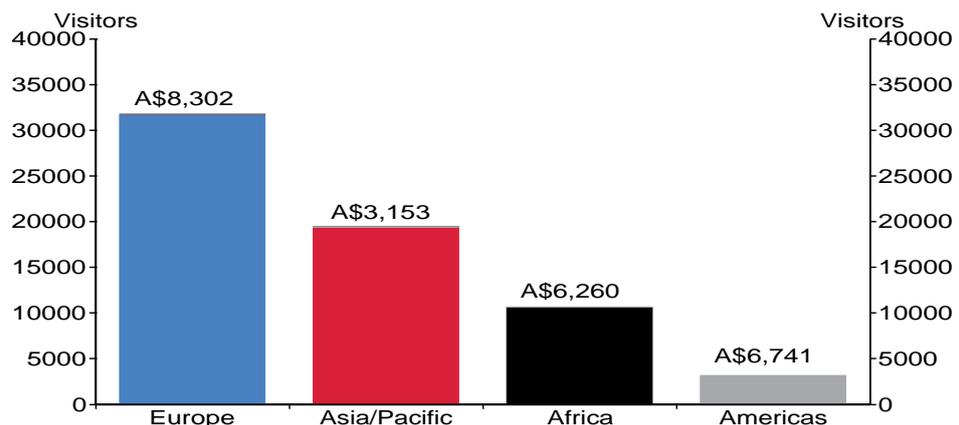
Source: Ministry of Economic Development.



**FIGURE 2****REAL EXPORTS OF TRAVEL SERVICES (SHARE OF GDP, SEASONALLY ADJUSTED)**

Source: Statistics New Zealand.

The 2003 Rugby World Cup in Australia is a valuable starting point for predicting tourist spending at the 2011 tournament, particularly given Australia's similar distance to other key spectator markets. Of the estimated 65,000 international visitors to the 2003 Rugby World Cup (figure 3), close to 50 percent came from the UK and Europe. Around 30 percent were from New Zealand and the Asia-Pacific region, while around 15 percent came from Africa.<sup>2</sup>

**FIGURE 3****2003 RWC ATTENDANCE AND AVERAGE SPEND BY VISITOR ORIGIN**

Source: URS.

2. URS (2004) is used as a key source for 2003 Rugby World Cup visitor arrivals and visitor spending data. The underlying data in URS (2004) were obtained from a number of agencies, including the Australian Bureau of Tourism Research, the Australian Rugby Union and Australian state governments.



Spending per visitor varied significantly by country of origin. Visitors from the UK and Europe spent the most per trip, on average – reflecting a significantly higher average length of stay compared to other countries. Visitors from the Asia-Pacific region spent the least and stayed for the shortest period. Visitors from the Americas had the highest daily spend per person. However, visitors from this region tended to stay for a much shorter period than those from the UK and Europe. It is important to note that these figures include both visitor spending in Australia and international airfares.

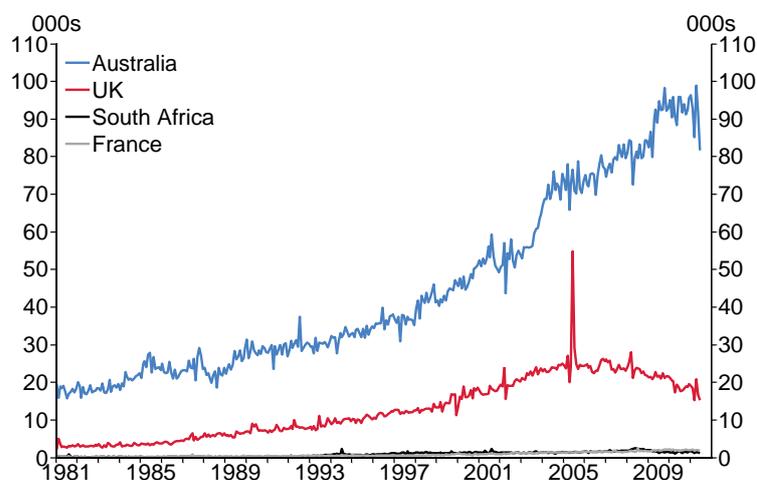
Looking at individual country arrivals to the 2003 Rugby World Cup, Australia, the UK, France and South Africa are likely to make up the vast majority of visitors to the 2011 Rugby World Cup. Of these destinations, the UK and Australia are typically key tourist markets for New Zealand (figure 4). In contrast, very few tourists from South Africa and France normally visit New Zealand.

Figure 4 illustrates two other points. First, the 1987 Rugby World Cup, co-hosted by Australia and New Zealand, had no obvious impact on visitor arrivals. This may not be too surprising, given the games were shared across countries and the total attendance at these matches was 600,000 (in comparison to 2.24 million at the 2007 Rugby World Cup).

In contrast, the British and Irish Lions 2005 tour of New Zealand made an obvious impact on monthly visitor arrivals. New Zealand saw around 30,000 additional visitors from the UK during June 2005, relative to the trend in UK tourism at the time. This is around a third of the expected arrivals during the 2011 Rugby World Cup.

#### FIGURE 4

##### MONTHLY VISITOR ARRIVALS (SEASONALLY ADJUSTED)



Source: Statistics New Zealand, RBNZ estimates.



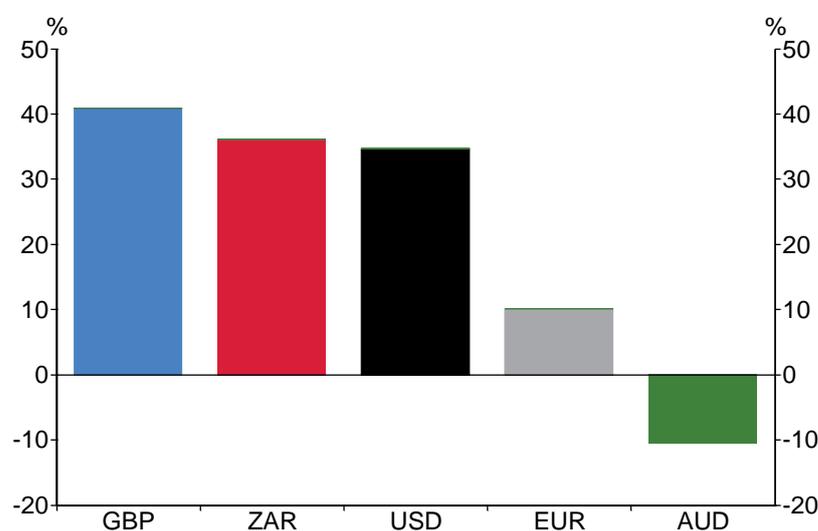
The 2003 tournament provides a valuable benchmark, but economic developments since then will have an impact on the number of visitors in 2011 and the amount these tourists will spend in New Zealand.

The exchange rate is an important factor in this regard. At the time of the 2003 tournament, the Australian dollar was only about 10 percent above its long-term average on a trade-weighted basis and the overall international economic environment was reasonably good.

New Zealand's situation now is rather different. The New Zealand dollar TWI is about 20 percent above its long-term average, and is particularly high relative to the South African rand, the British pound and the US dollar, having appreciated significantly against these currencies since 2003 (figure 5). All else equal, an elevated currency makes New Zealand more expensive as a destination, potentially discouraging some visitors. In addition, visitors may be working to a fixed budget in their home currency while travelling. An appreciation of the New Zealand dollar erodes the value of that fixed budget and will lower the total amount of spending in New Zealand dollar terms.

**FIGURE 5**

**CHANGE IN NEW ZEALAND DOLLAR CROSS RATES SINCE NOVEMBER 2003**



Source: Reuters, Haver Analytics, Bloomberg.

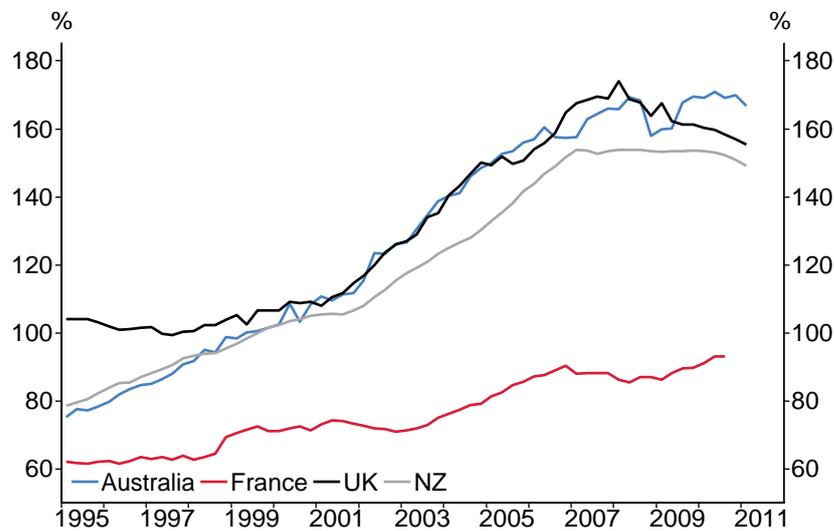


Of course, the New Zealand dollar is relatively low against the high Australian dollar at the moment, a factor that may encourage a higher proportion of Australian visitors as well as a higher average spend. However, New Zealand must still compete as a destination for Australian tourists during the Rugby World Cup.

Economic activity has increased in all the key Rugby World Cup tourist markets since 2003. However, household debt relative to income or GDP has also built up significantly since then (figure 6).

**FIGURE 6**

*HOUSEHOLD DEBT (% OF DISPOSABLE INCOME)*



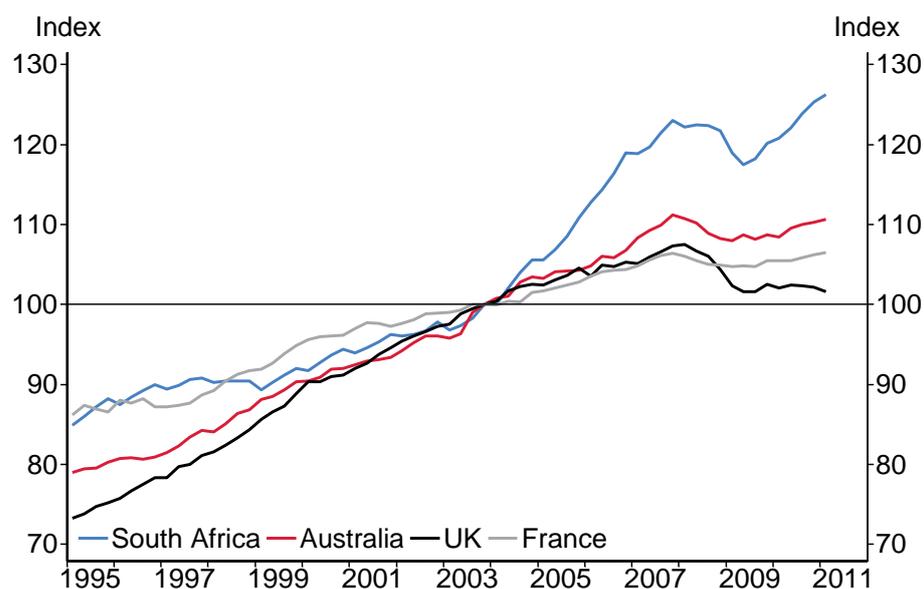
Source: Haver analytics, RBNZ estimates.

In a number of countries, high debt levels are among factors that have acted as a constraint on growth in consumer spending, as the international recession has prompted a degree of household caution. Apart from South Africa, growth in per capita consumption has been limited in key markets since the 2003 tournament (figure 7). Overall, high household debt might negatively affect visitor spending during the tournament.



FIGURE 7

REAL PER CAPITA CONSUMPTION (INDEX=100 AT Q4 2003, SEASONALLY ADJUSTED)



Source: Haver Analytics.

Table 1 summarises the Reserve Bank's working assumptions around visitor spending. The 2003 Rugby World Cup is used as a base. After making a prediction for total arrivals, total average spend per visitor is then estimated, taking into account the 2003 experience and factors such as income growth, movements in New Zealand dollar cross rates, household balance sheet positions and developments in household spending.

TABLE 1

ESTIMATED SPENDING IN NEW ZEALAND AND VISITOR NUMBERS BY REGION

Region	Average spend per visitor	Assumed visitor numbers	Total spend (\$m)
Europe	8,100	43,149	350
Asia Pacific	6,050	33,132	200
Africa	8,300	14,437	120
Americas	6,900	4,282	30
<b>Total</b>		<b>95,000</b>	<b>700</b>

Source: RBNZ estimates.

In predicting the number of international visitors the Rugby World Cup will attract, the Reserve Bank's initial assumption was that the tournament would generate 70,000 visitors to New Zealand. Tournament organisers conducted a survey of purchasers of public tickets over the end of 2010. Results of this survey, along with information on sales of official packages, suggest ticket sales at the time would result in at least 85,000



international visitors.

When this survey was conducted, ticket sales totalled 864,000. Total ticket sales have since reached the 1 million mark and more are likely, as kick off approaches. While most of these late ticket sales will be to New Zealanders, some will also be to foreigners. Taking these factors into account, the Reserve Bank's current working assumption is that the Rugby World Cup generates 95,000 visitors to New Zealand.

Again, the 2003 World Cup can be used as a guide to inform the likely origin of these visitors. The 2003 breakdown is largely used, with a slightly greater skew towards Australian visitors, given their importance to New Zealand as a tourist market, their relative economic performance and their favourable exchange rate. It is the importance of the Australian market to New Zealand tourism that also helps reconcile the estimated increase in overall international visitor attendance between the 2003 and 2011 tournaments.

In aggregate, these estimates suggest Rugby World Cup visitor spending in New Zealand will total around \$700 million over the final two quarters of 2011. This includes general visitor spending in New Zealand as well as the component of visitor airfares and package tours spent in New Zealand<sup>3</sup>. This \$700 million would be recorded as exports of services from New Zealand. Some of this spending will have already happened (e.g., ticket purchases). The national accounts are designed to capture economic activity when the service is delivered, not when the payment is made for it.

But to assess the impact of the tournament on overall economic aggregates (such as GDP – the value of production in New Zealand, or GNI – the value of New Zealanders' incomes), knowing the gross spending of foreign visitors is just a start. For example, some of the foreign spending will be met with an increase in imports (of goods or services) in New Zealand (imports are around 35 percent of GDP). This will reduce the net impact of this spending on GDP.

In addition, the tournament may have resulted in a shift of the timing of tourism, with individuals moving holidays they would otherwise have undertaken in New Zealand to coincide with the tournament. This could see weaker tourism activity in the period preceding and following the Rugby World Cup than would otherwise have been the case.

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3. URS (2004) estimates the portion of sales of Rugby World Cup package tours and international airfares spent in Australia and overseas (e.g., factors such as commission to foreign travel agents, the portion of international travel handled by Australian airlines and the purchase of Australian goods by foreign airlines). These estimates are used in forecasts of 2011 Rugby World Cup visitor spending in New Zealand.



Further, Rugby World Cup tourism may crowd out other tourism. Potential visitors to New Zealand may perceive the country is at capacity and postpone their trip or visit another destination. Some tourists may be deterred from visiting, given their preferences do not fit with the tournament environment. Some business activity may also be offset, due to the difficulty in organising accommodation, travel and events around the time of the Cup.

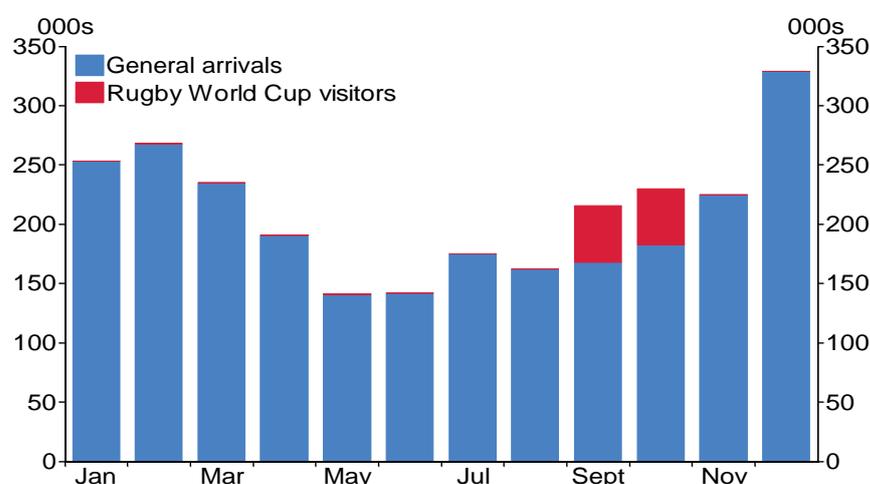
It seems unlikely that New Zealand will experience significant aggregate capacity pressures in the tourism industry. Visitor arrivals typically spike in December, driven by those visiting family and friends over Christmas (figure 8). However, given these visitors tend to stay with friends or family, December is not generally the month of peak demand for tourism services.

New Zealand's peak in international tourism demand generally occurs in February each year, as holiday activity rises. Spreading total tournament visitors evenly over September and October, monthly tourist arrivals would not reach the level of arrivals seen during the February peak in tourism activity.

However, Rugby World Cup visitors are expected to stay longer, on average, than typical tourists. As a result, a typical Rugby World Cup arrival will put more pressure on tourism resources than an average tourist. In addition, regional capacity pressures may be an issue, particularly if the tournament sees a rise in tourist numbers to regions that do not generally experience significant seasonal peaks in tourism. Further, New Zealanders are also likely to use more accommodation services during the tournament than average (travelling to games held in other cities).

**FIGURE 8**

**AVERAGE VISITOR ARRIVALS (2007-2011) AND PROJECTED TOURNAMENT ARRIVALS**



Source: Statistics New Zealand.



A longer-term factor that is difficult to quantify is the effect of the Rugby World Cup in focusing attention on New Zealand as a tourist destination. The international attention on New Zealand as a result of the tournament may boost tourism demand and visitor numbers longer term. However, international experience suggests such effects can be limited, perhaps especially in a period when the exchange rate is relatively high.

### THE RUGBY WORLD CUP AND DOMESTIC ACTIVITY

New Zealanders' attendance at the Rugby World Cup will play an important role in determining the success of the tournament. Domestic ticket sales are likely to make up a significant proportion of total sales. At the 2003 Rugby World Cup, around 68 percent of ticket sales were to Australians – although a portion of these may have been bought on behalf of international visitors.

Economic conditions will influence the scale of domestic involvement in the tournament, to some extent. The domestic economy has picked up in the first half of the year, after a period of subdued activity over the second half of 2010. However, as in other Western nations, high household debt levels and sluggish income growth over recent years in New Zealand appear to be acting as a constraint on consumer spending.

Domestic spending on the Rugby World Cup and related activities is likely to be significant. However, the additional boost to activity that this spending provides will also depend on a number of factors. In particular, households only have so much disposable income to spend. As a result, spending related to the tournament may just offset spending on other activities. If this is not the case, the savings rate will be lower than otherwise. In addition, the expected intense focus on the tournament during the next couple of months may act to constrain some other economic activity.

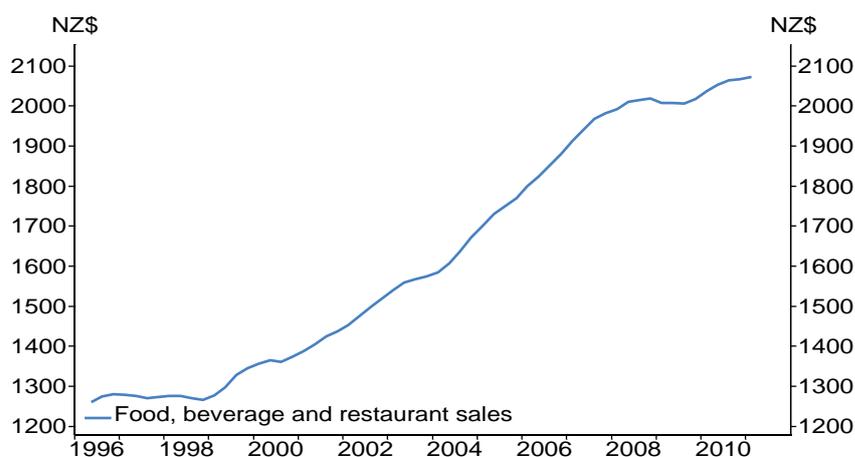
Domestic spending on the tournament itself will generally be recorded in the national accounts over the final two quarters of the year. However, a significant amount of the payments for these tickets will already have been made. As a result, Rugby World Cup spending may already have been constraining spending on other activities.

On average, New Zealanders spend around \$2000 on hospitality per person per year (figure 9; this does not include supermarket spending). Taking into account ticket prices, match-related travel and general related spending, in many cases the cost of attending a Rugby World Cup match likely represents a significant portion of many households' hospitality expenditure.



FIGURE 9

FOOD, BEVERAGE AND ACCOMMODATION EXPENDITURE (CURRENT DOLLARS, PER CAPITA)



Source: Statistics New Zealand.

The Rugby World Cup will result in a rise in domestic production outside of the direct spending of international and domestic fans. For instance, the international broadcast of matches will likely boost activity in the media sector.

In addition, if incomes rise as a direct result of increased domestic and international spending in New Zealand, this will tend to increase domestic spending even further into next year. A factor that is harder to quantify is any confidence impact of hosting the Rugby World Cup, which could potentially increase general domestic spending during the tournament period. On the other hand, an unexpected early exit of New Zealand from the tournament could have the opposite effect.

The tournament-related spending of New Zealanders may substitute for other international travel (e.g., some may have chosen rugby over a winter holiday this year), particularly given the cost relative to household disposable income. This would provide a slight additional boost to net exports. The rise in exports of services as a result of additional international visitors will also support the current account. However, any rise in imports, profits of international subsidiaries in New Zealand, or the payment of hosting and broadcast fees<sup>4</sup> would limit this overall impact on the current account.

4. Treatment of broadcast rights in the national accounts and the balance of payments is one of the uncertain areas. In principle, the value of the broadcast rights arises from a tournament being held in New Zealand in September and October. That value should be reflected in New Zealand's GDP for that period. However, since the revenue from broadcast rights accrues to the International Rugby Board, the incomes of New Zealanders would not be boosted: GNI would not be boosted, and in the balance of payments the exports of broadcast services would be offset by factor income flows (on account of the payment for the broadcast rights). Australian Bureau of Statistics (2003) suggests these flows were largely excluded from the Australian statistics at the time of the 2003 tournament.



It is not only local households who may also have altered their spending to cope with attending Rugby World Cup games. The tournament has also encouraged a substantial increase in spending on recreational infrastructure in the last couple of years. This includes the upgrade and construction of stadia, along with the improvement of infrastructure and public facilities. For example, around \$250 million was spent on the upgrade of Eden Park and around \$200 million on the new Otago stadium.

This spending will already have been recorded in the national accounts over the last few years, and put pressure on available resources during that period. The expected activity related to the tournament may also have prompted some private businesses to undertake investment to improve assets or expand capacity. However, whether this represents a net increase in investment will depend on whether the tournament has just shifted the timing of planned investment and the degree of crowding out of other projects that has occurred.

At the margin, decisions by local councils, especially in Auckland, to limit building activity over the period from now until the end of the World Cup, to keep urban congestion to a minimum, will also have a slight negative effect on activity in the next few months – offset by accelerated activity in advance, and deferred activity occurring next year.

## CONCLUSION

The Rugby World Cup is estimated to bring a total of 95,000 visitors to New Zealand, with those visitors spending a total of \$700 million in New Zealand over the duration of the tournament. This gross spending is not a direct boost to GDP, but in magnitude it is equivalent to around 1.4 percent of quarterly GDP. Domestic spending on the tournament is also expected to be significant, although it is less clear how much, if any, of an overall boost to total domestic spending there will be. The tournament will have facilitated the construction of some additional recreational infrastructure, while the exposure of New Zealand through the tournament may act to increase tourism longer term.

The net impact of the tournament on short-term economic aggregates, and longer-term activity, remains to be seen. Factors including the operational cost of hosting the tournament, timing shifts and the crowding out of other tourism and investment, household budget constraints and any rise in imports associated with higher domestic and international spending must be taken into account when assessing the overall macroeconomic impact of the Rugby World Cup.



From the Reserve Bank's perspective, the real issues are not necessarily about assessing the net benefits and costs. Instead, they are about understanding the way in which the tournament is affecting macroeconomic data and disentangling the temporary fluctuations from the trend way in which the economy is evolving.

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