



PwC Treasury Broadsheet

Quarterly newsletter of snippets and stories from the world of treasury management - published by PwC Treasury Advisory

26 May 2017

[\(Click to view\)](#)

[Will increased costs to derivatives \(XVA\) challenge future corporate hedging decisions?](#)

Will increased costs to derivatives (XVA) challenge future corporate hedging decisions?

In previous Treasury Broadsheet articles we have warned our clients of the impending cost increases being added to derivative transactions caused by XVA (the sum of the various value adjustments) introduced by the banks over the past 12 months.

[Approaches to managing minor currencies](#)

These value adjustments have been imposed on the Banks by regulators and compromise:-

[Foreign exchange rate assumptions in financial budgets](#)

- CVA/DVA – Credit/Debt Valuation Adjustment
- FVA – Funding Valuation Adjustment
- MVA – Margin Valuation Adjustment
- KVA – Capital Funding Adjustment
- **XVA – Total Valuation Adjustment**

[Interest rate swaps versus fixed rate term loans](#)

These changes have caused an increase in the cost of transacting derivatives and this has particularly been felt by corporates executing long dated interest rate swaps (> 5 years).

[Treasury performance measurement](#)

[How should you determine an optimum liquidity buffer? Part 1](#)

There has not been consistency amongst the Banks in terms of their timing and application of XVA to their derivative business and this has certainly created disparity in pricing to corporates. These derivative market developments emphasise the importance of having a wide range of bank counterparties when executing new, long dated derivative transactions.

[Treasury and populism](#)

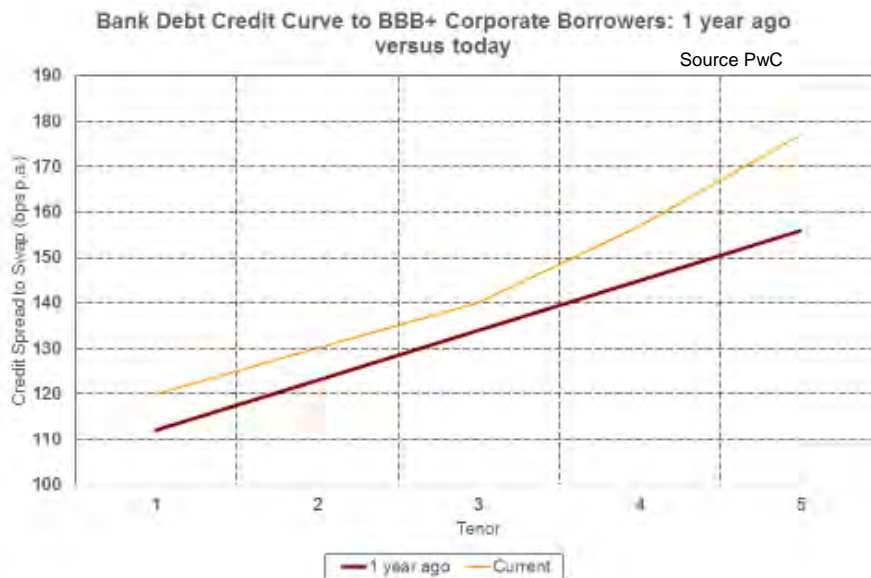
In fairness to the Banks, some of this pricing disparity is caused by CVA/DVA adjustments influenced by the composition of their existing swap portfolio with the corporate and whether the new swap is adding or subtracting from the underlying position.

[Interest rate swap right-to-break clauses](#)

By way of example, a corporate seeking to execute a new long dated Fixed Rate Payer swap with a bank that already has an existing portfolio of long dated interest rate swaps (“out of the money” fixed rate payer swaps from the corporates perspective) will likely see higher CVA/DVA determined margins from that

particular bank influencing ultimate pricing. The corporate will more likely obtain tighter pricing from a new bank that has no derivative credit exposure to the corporate.

Over the past 12 months we have observed a significant disconnect from the banks on what used to be a fairly linear credit (lending) curve.



Simply put, the banks' cost of capital is heavily influenced by their own weighted average cost of funding and this increase has to be passed on to corporates. Banks are more cognisant of matching term lending with term funding.

Conclusion

- XVA is here to stay and the cost of executing long term derivatives has increased depending on terms, security and credit status. We have observed anything from five to 25 basis points added to market mid (between wholesale bid and offer quotes) pricing on seven to 10 year swaps.
- Companies should increase their counterparty capacity as the XVA calculations will vary significantly between banks.
- **When seeking any derivative quote from a bank, corporates should ask for the banks' mid-rate market price plus XVA margins, the sum of which provides the ultimate execution price.**
- If sole-banked then it is wise to seek further clarification of the XVA margin total as considerations such as security risk weighting (local government) and portfolio positioning can help negotiate/mitigate some of these values.
- The XVA charge might be significant enough to compromise the hedging economics and require a review of the underlying hedging strategy and objectives as other hedging solutions may need to be considered. For example, some collar and cap option structures may be justified when a comparing their costs against swap XVA charges. The XVA on alternate hedging instruments such as options may be considerably lower.
- In the case of local government borrowers and other highly rated borrowers, it is becoming more common to consider leaving bond issues at their fixed interest rate, if it aligns with their interest rate risk management strategies.

Approaches to managing minor currencies

Our observation is **that there is no consistent approach across New Zealand's importers and exporters in respect to their policies and practices for managing the foreign exchange risk on their "minor" currencies.** Typically, importing and exporting companies will actively risk **manage their "major" currencies within predefined hedging policy limits.** However, the rats and mice cash receipts and payments in minor currencies are often ignored as immaterial and thus not justifying the management time to hedge in any shape or form. Generally, the conversions from NZ dollars or back into NZ dollars are transacted at the spot rate on the day the FX payment is due or the FX export receipt turns up in the foreign currency bank account. The materiality threshold for what is categorised as a major currency and what is relegated to being a minor currency is usually arbitrarily determined by the CFO based on each individual currency flow as percentage of total annual import payments or export sales.

There may well be some dangers in adopting such a **"one size fits all" approach?**

A more scientific method of determining whether a particular currency pair makes the grade as a major or minor currency would be to calculate the potential impact on company profitability from not just the annual flow amount compared to total flows, however also the likely FX market volatility of that currency pair. Emerging market currencies can be more volatile than the major currencies. Therefore analysis of foreign exchange market data of historical volatility and trading ranges may determine that a currency with relatively small annual flows may deliver a comparatively much larger adverse impact to profitability due to the sheer size of the currency movement through the year. As a consequence, any annual or bi-annual review of the FX or Treasury Management Policy should critically examine whether a currency pair is promoted up to become a major or demoted to the minor league, supported by the aforementioned analysis.

Individual minor currencies viewed in isolation may seem immaterial and not worth bothering with. However, therein lies another risk in that (say) eight minor currency annual exposure amounts added together may trigger the materiality threshold. As an example, an exporter with cash receipts in eight minor currencies that are normally converted back into NZ dollars at the spot rate (i.e. not hedged) there is arguably a more prudent way of managing the FX risks. All eight foreign currency cross-rates to the NZ dollar have a NZD/USD leg, therefore the combined NZD/USD exposure may be sufficiently material (above the threshold) to be added to the major NZD/USD currency exposure and risk managed accordingly. The second leg of the minor currency pairs is the foreign currency rate against the USD, these may be left unhedged or hedged in a mechanical fashion. If the NZ dollar appreciates due to specific New Zealand centric factors, all the cross-rates increase along with the NZD/USD rate. If the combined NZD/USD exposure of all the minor currencies is not stripped out and hedged, the impact on company profitability from a soaring NZ dollar value may be a more than anyone bargained for. The argument that several minor currency risks will have positive and negative movements offsetting each other does not wash either, as if the NZ dollar is appreciating strongly against the USD for its own reasons, all the cross-rates to the NZD will be lifting in unison.

Many emerging market currencies have their own peculiarities and constraints in respect to the availability of liquid forward hedging markets and local exchange controls impacting on the free timing of payments and receipts. A recent global survey conducted by Citibank revealed that more than half the corporate treasurers polled do not distinguish between emerging and developing markets within their FX hedging strategies. Many corporates are aware that they need to deploy a different hedging approach between developed and emerging market currencies, however their current FX policies remain virtually the same for both types Citibank concluded.

How many New Zealand exporters have separate and tailored FX hedging policies for their minor currencies, individually and combined?

Another reason for an export company to manage minor currencies within their own policy hedging limits (instead of dismissing the FX risks as immaterial) is that the business unit or division responsible for sales/profits in the markets of minor currencies would not be happy with their performance being impacted by adverse currency movements when something could have been done about it.

Foreign exchange rate assumptions in financial budgets

When making assumptions around foreign exchange (“FX”) rates for financial budgets (conversion of overseas receipts or payment) the first step is to apply existing weighted average hedged rates; assumed FX rates only being applied to the unhedged balance.

We observe a wide range of differing approaches for applying FX rate assumptions within financial budgets, including:-

- **Using a specific bank’s FX rate forecast.**
- Using a specific forecast belonging to a person of standing within the organisation.
- Using an **average of several selected banks’ forecasts.**
- Using some average of historical spot exchange rates.
- Applying the spot rate at the time the budget is approved.

Sometimes a buffer/contingency amount is applied to provide some wriggle room.

A problem with most of the approaches above is they may not actually be achievable from the outset, i.e. the organisation cannot actually achieve the budget FX rate thereby placing immediate pressure on the entire financial performance of the organisation relative to budget. **Further, any FX “forecast” is inherently prone to revision often** with no accountability and justification as to when the forecasts were made and what the events, rationale and assumptions were which formulated the original forecasts at the time.

Over the years we have developed a methodology for applying FX rate assumptions using combined rates that are transparent, traceable and achievable and not influenced by foreign exchange market views and forecasts, on the following basis:-

Hedged portion: Apply the weighted average hedged rate for the proportion of FX exposures already hedged, inclusive of worst-case protection rates for collar options or purchased FX options (inclusive of premium).

Unhedged portion: Prevailing market FX rates, being 50% outright forward rates and 50% purchased option:-

- At the time the budget is approved apply the market forward rate for the middle of the budget period **(typically the six month forward exchange rate or ‘par’ forward rate)**
- Determine the premium cost (in FX points) for a purchased FX option with protection at the forward rate. The option method reflects an FX rate the organisation could actually achieve at the outset of budget finalisation as a worst case rate. For simplicity the option premium may be represented as a buffer per FX pair; for example three cents above the forward rate for NZD/USD, two cents for NZD/EUR and NZD/AUD (with these being influenced by historical volatility).

Once the budget is agreed, Treasury staff within the organisation could actually go about protecting and achieving the budget in respect to FX under these metrics. Treasury are benchmarked as a KPI against the budget FX rates achievable as worst case and with ability to do better. To accurately measure their performance, Treasury must have some discretion for FX option purchases.

Interest rate swaps versus fixed rate term loans

Many times we are asked to outline the difference between transacting a fixed rate term loan versus raising funding as a fixed margin over floating interest rates and transacting a borrower swap. Both approaches create the same outcome. There is no economic difference between a fixed rate term loan and raising floating rate debt and fixing the wholesale interest rate cost with a swap.

However, greatest flexibility to actively manage interest costs is provided through the separation of both funding and interest rate risk. Funding credit margins and wholesale interest rates are typically countercyclical as central banks are generally loosening or tightening monetary conditions at opposite times to cash/credit markets. Borrowers are making the longer term management decisions for credit margins and interest rate costs at different times in the cycle.

Below we highlight the key areas in which borrower interest rate swaps/derivatives can be compared to fixed rate term loans.

	Bank fixed-rate term loan	Borrower interest rate swap
Bank loan type	The bank charges a fixed all-up interest rate that combines a fixed lending margin and a fixed wholesale interest rate on the facility for the term of the facility.	Borrow at wholesale floating rate (i.e. 90-day rate resets at market rates plus lending margin). Committed floating rate facilities will usually fix the fees and lending margin for the term of the facility.
Amount being fixed	No flexibility, the full loan amount is fixed and drawn down on commencement of the loan facility.	Swap contract can be entered for any amount, in multiples of \$0.50 million, e.g. borrowing facility of \$10m, decide to fix 75% now, therefore enter a \$7.50 million borrower swap. Later on, the percentage fixed can be increased by transacting another swap contract. A range of different instruments can be used.
Flexibility	Cannot unwind early or unknown penalties applied by the bank for early termination of facility. Amounts cannot be repaid and redrawn.	At any time the swap can be unwound or closed down. If term swap rates subsequently increase, the swap is closed down at a realised cash gain - being the difference between the contracted swap rate and the higher market swap rate for the term left to run (and vice versa).
Term of fixing	Interest rate is fixed for the term of the loan facility.	A fixed rate swap can be for longer terms than that of fixed rate loans and does not have to be the same maturity date as the underlying bank loan facility. May be shorter or longer.
Cash flow	Interest paid monthly or quarterly.	Interest on 90-day physical borrowing paid every 90-days and then the bank calculates the difference between the swap fixed rate and market floating rate every 90-days, with the borrower paying the cash difference between the two interest rates to the bank and vice versa.
Transparency	The component parts which form the 'all-up' pricing of fixed-rate loans are usually not transparent.	Line fees, borrowing margins and the underlying wholesale interest rates are clearly observable and therefore rates can be benchmarked to market and sector peers.

In our experience, the cost of managing long term borrowing costs is both more flexible and more cost efficient through interest rate swaps and floating rate debt funding facilities rather than long term fixed rate loans. With respect to long term fixed rate loans, the capital and liquidity cost is greater for the funding bank and this is passed onto the borrower.

As mentioned within this Broadsheet, increasing XVA costs are now a reality in transacting swaps. However this should not dissuade borrowers managing interest rate risk with derivatives under the guidance of obtaining transparent market mid-rate pricing, increasing bank swap counterparties, and strategies to the term of hedging.

Treasury performance measurement

Treasury performance measurement attempts to assess how well the treasurer or the treasury function are doing their jobs. Although objective evaluation is not always an easy task, it is important.

With treasury serving predominantly as risk management function or a cost centre for most New Zealand businesses, performance measurement often involves the treasurer justifying decisions made or the perceived cost of treasury activity as well as being an important aspect of ensuring a best practice control environment. In larger treasury functions, remuneration is also increasingly based on performance.

Explaining to Boards or Senior Management the results of past treasury activities can make for a difficult conversation, particularly in a challenging economic environment where risks being managed are not always well understood and the benefits of perfect hindsight come to the fore. It is important therefore, to have a well-defined and impartial measure of the decisions which treasury have taken.

It is the Board who have the responsibility for defining and setting treasury policy and should ensure that it encompasses a measure of how that policy is implemented. Treasury functions must be set targets and their results measured against these under an agreed methodology. Performance measurement assists in the process of feedback to the Board, the appropriateness of the strategic direction taken, the policy framework and the execution within this framework. Commonly used performance measurements in treasury are benchmarks and key performance indicators (KPIs).

Benchmarking of performance has dual aspects, both as an internal measurement tool as well as enabling a firm to compare itself against peers. An internal measurement may be to compare the foreign exchange rates achieved through hedging activity to the average spot rate and an external benchmark may be to compare these rates achieved to those of similar organisations. Internal benchmarks are easier to set up due to the company having control over both the end result and the target. Although it can be difficult to find suitable companies for comparison (not of same size, different exposures, lack of access to results, inconsistency in reporting etc.), **external benchmarking is highly informative in assessing a company's performance compared to peers.**

Key performance indicators (KPIs) can be used to measure the effectiveness of a policy and also the to measure **treasury's performance in execution under the policy framework as opposed to alternative courses of action.** For example, if the policy is to minimise interest costs through active interest rate risk management, then actual rates **achieved due to treasury's decision making could be compared against the interest rates that would have been** achieved had hedging being implemented more mechanistically as determined by a formula contained within the policy.

Care should be taken in the development of treasury policies to ensure that treasury functions are able to meet performance expectations without taking on additional risks as well as operate in a manner that is consistent with the risk appetite of the Board. It is important for performance measure to assess both return and the associated risks so that appropriate KPIs and benchmarks can be set, managing the risk of return targets in isolation encouraging excessive risk taking to meet these goals.

The overarching measures of treasury performance should:

- assess the effectiveness of treasury policy and;
- assess the efficiency with which the policy is applied.

On a more granular level, a system of treasury performance measurement should include the following characteristics:

- consistent with policy frameworks
- objective and quantifiable (whenever possible)
- within the control of the treasurer or treasury function
- clearly communicated to and understood by those being evaluated
- relevancy to the market and to what is being measured.

Not all treasury performance benchmarks or KPI's are quantitative in nature and a mixture of qualitative measures should also be used. Qualitative measures of treasury may include:

- support to other parts of the organisation by giving valued advice
- maintaining or enhancing key external or internal relationships
- maintaining effective operational controls

Qualitative measures are by definition subjective, however, senior executives should know the limitations of qualitative performance measurement and be able to recognise and reward a high achieving treasurer or treasury function where applicable.

Continuous improvement in the assessment of treasury performance is important given the treasury function's operation in volatile financial markets and where treasury decisions often have a significant impact on firm wide performance. Benchmarks, KPIs and reporting in treasury should all be consistently reviewed and improved to create better feedback to Boards and senior management, leading to gains in operational efficiency and control.

How should you determine an optimum liquidity buffer? Part 1

Liquidity refers to an organisations access to liquid funds, defined as cash or unencumbered cash equivalent assets that are readily convertible to **cash**. **Every aspect of a treasury department's role interfaces with the need for sufficient liquidity**, rendering liquidity risk management an unequivocally essential aspect of any robust treasury policy.

When we refer to liquidity management we are essentially **referring to how much headroom, or "liquidity buffer"**, an organisation has. Headroom is the total amount of undrawn, committed facilities that an organisation is able to **access to absorb unexpected shortfalls in cash**. **The objective word here being "committed" as often the times when liquidity buffers need to be utilised are the times when banks enforce the greatest restrictions on uncommitted lending**. Many organisations learnt this the hard way during the GFC and have since been asking themselves, how do I determine a sufficient liquidity buffer?

Setting an appropriate liquidity buffer is therefore critical to any going concern. There is of course a cost of having excess liquidity (e.g. commitment fees on committed borrowing facilities) to the extent that the liquidity is greater than is necessary for the organisation. Perhaps a more appropriate question that organisations should be asking themselves is: how do I determine my optimum liquidity buffer?

Prudent liquidity risk managers may use any of the following methods to answer this question:

- Percentage of peak debt over a defined forecast period (i.e. rolling 12 months)
- Fixed dollar amount

- Percentage of specific period of committed operating expenses plus financing costs
- Considers future debt/capex/free cash flows from operations

Regardless of what method is used, the right answer can only be achieved with a well-considered cash flow forecast. Cash flow forecasting aims to identify where, when and in what currency cash flows are expected to occur, allowing an organisation to detect any cash shortfalls and plan in advance how these will be funded. A sometimes overlooked **but no less critical part in this process is to scenario test the 'base case' forecast. Doing so will provide more comfort** to an organisations stakeholders that there is a robust liquidity management process in place to safeguard solvency across all market conditions.

Notwithstanding this, each method has its own advantages and disadvantages with some better suited for an organisation than others. Part 2 of this reading will examine the merits of each method and their appropriateness across different industries and organisation types.

Treasury and populism

In recent years we have seen a global political shift towards populism, most notably highlighted in the UK with the **Brexit vote and the election of Trump in the US. The new 'for the people' agenda has the potential to change current world order**, the way we trade globally, and in essence our global economic system as a whole.

The currently global trend seems to be centred around uncertainty and to an extent volatility. Only time will tell what Trump will do in office and similarly we will not know the implications of Brexit until negotiations begin later this year. It seems 2017 is the time to begin planning for contingencies. Identifying key risks, asking the right questions and exploring possible outcomes and their effect.

Taking Brexit as a case study, treasurers need to consider how they will manage their liquidity across the surrounding region and questions will need to be asked to form a strategy.

- Will EU create incentives to hold Euros on the continent?
- Do you have full visibility across currencies, agreements, investments, and resources utilised?
- Are you in a position to make decisions, **take action and understand Brexit's impact in the short and long term?**

Terms of trade around the UK's access to the EU market are shrouded with uncertainty and depending on the outcome, renegotiation of trading terms with suppliers or customers may be necessary.

Developments in regulations in and out of the UK will need to be continually monitored. In the final agreement for example, if the UK does not become a member of the European Economic Area, passporting rights that are leveraged by many companies could be impacted. Again, questions will need to be asked.

- Do you have a clear view of what licences are being passported into the UK?
- Do you understand the terms and potential working capital impact on contracts that cross UK-EU?

Company's relationships with banks will also need to be re-evaluated across the UK and Europe. A key understanding around how banks operate today will be needed, alongside where they clear euros and if that will be impacted in the future.

For decades the UK has been and remains a major financial hub, housing treasury centres, shared service centres and cash pools. Companies may need to establish their location setting criteria and decide if anything needs to change. Overall putting Brexit into effect has been extremely difficult, and whilst the economy proved more resilient than expected growth is still projected to be slower than if they chose to remain in the EU.

Interest rate swap right-to-break clauses – what do they mean for your business

Your relationship banks may have had a conversation with you around the provision of interest rate swap dealing lines and the requirement for a “right-to-break” clause. The right-to-break as a bank, credit mitigation mechanism has been adopted within the New Zealand swap market for some time.

What does the right-to-break clause mean to the wholesale borrowing corporate or council that is transacting interest rate swaps?

Quite simply, the bank has the right to close out the interest rate swap on the stated close-out date. The close-out date will be a date earlier than the legal maturity date of the swap. The date could be, for example, on the fifth anniversary date. On that date, the bank has the right to mark-to-market the swap and to legally force the borrower or investor to pay or receive the amount owing (revaluation gain or loss) on the swap. Although the early close-out of swap contracts has not been common practice in the New Zealand market, the contingent risk remains. Following is a check list that may be appropriate for a corporate/council treasury manager?

- **Where able, request your banks provide “clean” swap dealing lines that do not have a right-to-break clause.**
- Do clarify with your swap dealing banks whether there exists a right-to-break clause in your derivative documentation (ISDA) and bank dealing lines. What existing swap contracts are subject to this clause?
- Carefully review the bank swap confirmation. If there is a right-to-break clause, how is it represented in the documentation? Do you fully understand how this is represented in the documentation? For example, a bank may use the word “Bermudan option” to effect the right-to-break. **Does the bank’s understanding align with your understanding?** Gather comfort from a must do, independent legal review of the documentation.
- Banks continue to price in XVA adjustments to the transacted swap price (the sum of a number of value adjustments including capital costs, funding costs and credit). We have mentioned these pricing adjustments on swap contracts in past releases of the Treasury Broadsheet (see current issue for more details). Understand how these value adjustments are impacted by the right-to-break clause.
- For instance long dated swaps that are closed out or restructured before maturity, should have some XVA relief that were originally priced with these value adjusters.
- For hedging reporting purposes, are interest rate swaps with a right-to-break clause included for their full legal term or the contingent shortened term? What treasury reported information is provided on hedge contracts that do have right-to-break clauses, their trigger dates and market value amount? What is the swap valuation policy for valuing these particular swap hedge contracts? How do taxation, accounting and financial statement disclosure policies treat swaps with right-to-break clauses?
- Be aware of the cash flow impact arising from the right-to-break clause. Large negative swap mark to market values, if exercised by the bank would have a significant business cash flow impact. How are these exposures monitored and contemplated in cash flow forecasts?

A greater understanding of these swap contracts with embedded right-to-break clauses, along with the ongoing monitoring and reporting of these contingent risk exposures will better position your business should the bank for whatever reason activate their right of close out.

Get in touch



Stuart Henderson
Partner

T: +64 9 425 0158
M: +64 21 343 423
E: stuart.r.henderson@nz.pwc.com



Roger Kerr
Consultant

T: +64 9 355 8181
M: +64 21 935 288
E: roger.j.kerr@nz.pwc.com



Brett Johanson
Partner

T: +64 4 462 7234
M: +64 21 771 574
E: brett.a.johanson@nz.pwc.com



Chris Hedley
Director

T: +64 9 355 8183
M: +64 21 479 680
E: chris.m.hedley@nz.pwc.com



James McHardy
Director

T: +64 9 355 8342
M: +64 21 263 4282
E: james.c.mchardy@nz.pwc.com



Jason Bligh
Associate Director

T: +64 4 462 7265
M: +64 21 386 863
E: jason.p.bligh@nz.pwc.com



Alex Wondergem
Associate Director

T: +64 9 355 8252
M: +64 21 041 2127
E: alex.j.wondergem@nz.pwc.com



Hasthika Ekneligoda
Treasury Advisor

T: +64 9 355 88855
E: hasthika.k.ekneligoda@nz.pwc.com



James Butler
Treasury Analyst

T: +64 9 355 8265
E: james.p.butler@nz.pwc.com



Tom North
Treasury Analyst

T: +64 9 355 8497
E: tom.o.north@nz.pwc.com



Ollie McDowell
Treasury Analyst

T: +64 4 462 7316
E: ollie.a.mcdowell@nz.pwc.com



Matt Stewart
Treasury Analyst

T: +64 5 462 7037
E: matt.j.stewart@nz.pwc.com

DISCLAIMER: This publication is subject to the following restrictions. This publication should not be reproduced or supplied to any other party without first obtaining our (PwC New Zealand) written consent. We accept no responsibility for any reliance that may be placed on its content should it be used for any purpose other than that set out below and in any event we will accept no liability to any party other than you in respect of its contents.

The purpose of the publication is to provide our current financial market views and opinions. The statements and opinions contained in this report are based on data obtained from the financial markets and are so contained in good faith and in the belief that such statements, opinions and data are not false or misleading. In preparing this publication, we have relied upon information which we believe to be reliable and accurate.

We reserve the right (but will be under no obligation) to review our assessment and if we consider it necessary, to revise our opinion in the light of any information existing at the date of this publication which becomes known to us after that date.