TODAY’S FINANCIAL MARKETS ARE GOING THROUGH WAVES OF REGULATORY AND MARKET STRUCTURE CHANGES THAT COULD RESHAPE BUSINESS MODELS OF FINANCIAL INSTITUTIONS (FIs) IN THE FORESEEABLE FUTURE. WHILST POSEING A RANGE OF CHALLENGES, THERE ARE ALSO OPPORTUNITIES FOR THOSE WHO KNOW WHERE TO FIND THEM.

Welcome to the fourth issue of ANZ Financial Institutions Group’s (FIG) Issues that Matter publication.

“Everything changes and nothing stands still”, Heraclitus, 535 BC -475 BC. The ancient proverb continues to hold very true. All we have to do is look at the regulatory and structural changes financial markets are going through and the challenging conditions – such as low interest rates, lacklustre economic growth combined with sustained bouts of market volatility driven by geopolitical events like ‘BREXIT’ – Financial Institutions (FIs) are facing.

Regulatory changes are increasing compliance and operating costs of FIs, sometimes to the point of putting the sustainability of their businesses into question. Innovations in FinTech are forcing FIs to rethink how to remain relevant and will require fundamental changes in their business and operating models. But it is not all doom and gloom. We see many of our clients exploring how to adapt to the ‘new normal’ and reshape their businesses to be successful for the future.

In this edition of ANZ’s ‘Issues that Matter’, we are pleased to share a range of articles centred around the theme of change that could provide opportunities to FIs. The topics are triggered by discussions with our clients and include a close look at Australia’s innovative New Payments Platform and how this could potentially change the way institutions do business, the G20 OTC uncleared margin reforms, the need for proactive currency risk management as fund managers and investors are targeting foreign assets, and potential avenues for Life insurers to address duration and yield challenges.

We sincerely hope that you will enjoy the read and always welcome feedback or requests on topics you’d like our Financial Institution specialists to cover in the future.

Kind regards,

SIMON IRELAND
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Imagine being able to make real-time data rich payments easily and quickly, any time, any place. This is the future with the New Payments Platform in Australia.

**BACKGROUND**

What is the New Payments Platform (NPP)?

No existing payment streams within Australia today are in real-time. NPP is the Australian banking industry’s response to the Reserve Bank of Australia’s 2012 innovation review, marking a milestone in the ongoing evolution of the local payments industry. The target capability which NPP is building towards includes:

- Delivering real-time payments (payment receipt expected to be in a matter of seconds);
- Making and receiving low-value payments outside standard banking hours (24x7x365);
- Sending more complete remittance information with payments; and
- New options for addressing payments (e.g. mobile phone numbers).

While NPP is oriented towards retail payments, it is still highly applicable to businesses, companies and financial institutions, who will be able to derive a range of benefits from its introduction and future innovations.

NPP is currently being developed collaboratively by 13 banks or authorised deposit taking institutions, including ANZ. It will comprise a basic infrastructure into which those financial institutions, and through them businesses and consumers, can connect. This will allow payments to be made quickly between those financial institutions and their customers’ accounts. The system will enable funds to be accessible almost as soon as payment is made – even when the payer and payee have accounts at different member financial institutions. As well as being real-time, NPP will be versatile, with basic infrastructure that can support various “overlay” services, especially tailored services that can be offered to customers.

The expected rollout date for NPP is late 2017, and it will help in the facilitation of:

- A range of retail and wholesale payments – such as insurance claims, dividends, rebates, and government welfare payments;
- An enhanced overall underlying retail and corporate customer experience – for example, SME and personal customers of banks and policyholders of insurers; and
- An alternative payment option for businesses’ customers (request to pay).

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1 In Australia, “authorised deposit taking institutions” (ADIs) refer to banks (both Australian owned, and branches and subsidiaries of foreign-owned banks), building societies and credit unions. Source: Australian Prudential Regulation Authority

2 “Overlay” services refer to the potential enrichment of the transaction beyond just the payment itself. At this stage, the first “overlay” is planned to be delivered in line with the NPP rollout, while other “overlays” are likely to be introduced from 2018/2019. Source: Australian Payments Clearing Association

3 Expected to be from 2018/2019
Customer initiates a NPP transaction

1. ANZ validates the payee’s alias (if present – e.g. email address, mobile phone number) through the Addressing Service. The linked bank code and account number of the registered alias will be returned to ANZ.

2. ANZ sends the NPP message (including bank code and account number) to the receiving bank through ANZ’s payment gateway.

3. The receiving bank must confirm if payment can be made by validating that the payee is able to receive NPP payments.

4. If positive confirmation is received, a settlement request is initiated to the Fast Settlement Service (FSS) of the Reserve Bank of Australia (RBA).

5. The RBA FSS facilitates the settlements between the participant banks, and settlement notifications advising of the settlement outcome will be initiated by the FSS.

6. ANZ and the receiving bank will each receive settlement notification confirming settlement has taken place (if successful settlement can be effected).

Customer benefits

- **24/7 365**
  - Fast availability of funds

- **ANYTIME**
  - Make and receive payments outside normal banking hours

- **DATA RICH**
  - 280 characters of free text
  - Ability to attach documents

- **SIMPLE**
  - Centralised addressing database

- **INCLUSIVE**
  - All banks have access to the same national payments platform

- **OVERLAY SERVICES**
  - Support of new overlay services to deliver a wide range of payments experiences

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3 Expected to be from 2018/2019
WHAT THIS MEANS IS A PAYMENTS FOUNDATION THAT ALLOWS FOR ADDING GREATER VALUE TO END USERS OF NPP WELL INTO THE FUTURE, A MODEL THAT SHOULD SERVE CONSUMERS AND BUSINESSES WELL FOR DECADES TO COME.

Although Australia won’t be the first country globally to have a real-time payments system, NPP is shaping up to have a level of capability and flexibility comparable to, or in advance of, real-time systems available elsewhere.

OFFSHORE EXPERIENCE

The payment volumes processed through real-time payment systems in other countries is impressive:

- Between December 2014 and December 2015, Faster Payments in the UK processed 1.2 billion payments valued at over £1 trillion. The volume processed represented approximately 16% of the system total, and 13% year-on-year growth. In the first quarter of 2016, Faster Payments volumes grew by almost 14% on an annual basis; and

- In Singapore, FAST (Fast and Secure Transfers) was launched in March 2014 in response to business and consumer demand for faster, more efficient payments – ANZ is one of the 19 participating banks in the scheme. FAST has been progressively increasing the transaction value thresholds and is showing great potential – in the first two days it went live, the system processed over 33,000 transactions valued at SGD64 million. There has been steady increase in its usage since then – for the full year 2015, FAST processed approximately 19 million retail payments worth SGD37 billion.

However, in Australia, faster payments are just the beginning. NPP is also planning to provide the capability for customers to address payments to mobile phone numbers, email addresses and Australian Business Numbers (ABNs). Furthermore, there are already discussions underway about the future capability to send a request for payment and the ability to send attachments with payments (e.g. invoices, premium notifications etc.) to provide extra information for the beneficiary, making the process of payments even more seamless.

NPP is expected to leap frog over many existing real-time systems around the world over time, because of the creation of a new underlying payments infrastructure which can support the future development of “overlay” services. What this means is a payments foundation that allows for adding greater value to end users of NPP well into the future, a model that should serve consumers and businesses well for decades to come.

WHAT ARE THE IMPLICATIONS FOR BUSINESSES?

So what value-add will payments processed in a matter of seconds provide to businesses? What are the benefits of having real-time access, enhanced data and new addressing capabilities?

For businesses with large working-capital cycles and funding exposures, NPP will offer enhanced efficiencies and create the potential to slow down payments to debtors until the very end of the invoice cycle, allowing companies to utilise funds more effectively. On the receivables side of a transaction, the increased data sending capabilities that NPP offers will facilitate improved reconciliation and payment visibility.

With NPP based on a global industry standard message format, the possibilities on the receivables side start to grow, as businesses start to get a much better understanding of the behaviours of their payers – for example, through the ability to send more information with each payment.

In the event of natural or weather disasters in Australia, insurance companies via NPP will have the capability to pay a portion of the claim to the policyholder in real-time, thereby allowing their customers to utilise the funds for immediate needs. Enhancing the customer experience is a key success factor in the Australian insurance industry given rising competition.

Banks/ADIs in Australia can leverage NPP to give customers greater flexibility in their payment options, as well as enhance notification and reconciliation services to real-time, providing for an improved customer communication experience.

Businesses will also have to contemplate the investment and resourcing requirements in order to take advantage of NPP. In order to cater for NPP in 2017 and onwards, businesses will need to ensure that their systems are able to manage the real-time information flow 24/7. Additional factors that will need to be considered include file formats, the authorisation of payments (including during weekends), managing cash flows outside business hours, and how to interact with the “overlay” services that NPP will offer.

How NPP interacts with existing payment systems in Australia (e.g. direct entry, cheque, RTGS – real-time gross settlement) is something else for the payment industry to consider over time. The introduction of NPP provides an opportunity for consolidation of the payments landscape, potentially allowing for the removal of inefficiencies and simplification of the “front end” for customers.

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4 Source: Payments UK (payment statistics)
5 Source: The Association of Banks in Singapore (media release dated 19 March 2014)
6 Source: Monetary Authority of Singapore (retail payment statistics)
7 ISO20022 standards
What about financial institutions?

For parts of the financial services sector, NPP will prove game changing – including banks/ADIs and insurers operating in Australian markets.

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<th>BANKS</th>
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At the industry launch of NPP, banks/ADIs in Australia will be able to access the following NPP services through ANZ:

- Make real-time payments for your customers in a simple, easy to use fashion;
- Potential to enhance notification and reconciliation services to real-time, creating an efficient and fast communication experience for your customers;
- Create greater payment addressing flexibility for your customers through alternative addressing mediums – e.g. email, mobile phone number;
- Enriched data using ISO20022 standards – provide greater data/information to share with your customers, and allow for the creation of innovative product solutions unique to your customers; and
- Implement the rails to launch innovative customer products and services into the future.

Upon NPP launch, insurance companies in Australia will be able to achieve the following:

- Enhance the claim experience – claimant to receive funds to their account more quickly than current payment methods. This offering will be utilised with the increased frequency of natural disasters occurring in Australia;
- Real-time payment notifications – giving peace of mind to the insurance company that the claim payment has been successfully processed to the claimant;
- Simple addressing – an insurance company will be able to associate more familiar details (e.g. email, mobile phone number) with bank accounts for use in transactions; and
- Enriched data using global ISO20022 standards – provide greater data/information to share with your customers, allowing for the creation of innovative product solutions tailored to your customer base. In addition, insurance companies can utilise the additional data made available for reconciliation purposes.

2018/2019 and beyond:

Post industry launch, banks will continue to leverage innovative solutions arising from NPP, including:

- Request to Pay – alternative customer solution to direct debits (e.g. invoice payments); enhanced reconciliation (e.g. up to 280 characters of reference text) whilst expediting the payment cycle;
- Payments with attachment – enhanced payment capability for your customers, with the benefit of enhanced data through the ability to attach PDF artefacts along with the payment instruction; and
- Ability to define and/or participate in other innovative “overlay” solutions – for example, launching proprietary solutions as well as leveraging industry wide solutions.

Upon NPP launch, insurance companies will be able to achieve the following:

- Request to Pay – potential insurance company efficiencies due to increased speed of premium receipt from your customers; enhanced reconciliation (e.g. up to 280 characters of reference text) whilst reducing potential policy lapses; and
- Payments with attachment – potential efficiencies by sending an electronic advice to customers with payments (e.g. claims particulars), significantly reducing transaction costs.

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8 Additional overlays noted are subject to confirmation and agreement by NPP participants
SHARING OUR INDUSTRY INTELLIGENCE WITH CLIENTS

ANZ is a founding member of NPP Australia and is a leading participant in the development of this initiative, and therefore strongly placed to introduce financial institution clients to NPP.

“The arrival of the real-time NPP in 2017 is set to revolutionise the Australian payments landscape. Imagine being able to make real-time data rich payments easily and quickly, any time, any place. The implications are significant and far-reaching for financial institutions doing business in Australia”, says Lisa Vasic, Head of Financial Institutions, Transaction Banking.

“Insurance companies via NPP will have the capability to pay a portion of the claim to the policyholder in real-time. Banks/ADIs in Australia can leverage NPP to give customers greater flexibility in their payment options. A considered view of the possibilities NPP could offer might be an investment very much worth making now”, says Andrew Palmer, Head of Financial Institutions Group, Australia.

For further detail or any questions, please contact GlobalFIGInsights@anz.com or call your ANZ relationship banker directly.

ANZ IS A FOUNDING MEMBER OF NPP AUSTRALIA AND IS A LEADING PARTICIPANT IN THE DEVELOPMENT OF THIS INITIATIVE

SUBSTANTIAL INVESTMENT
ANZ investing to bring NPP to market in 2H 2017

REAL-TIME EXPERTISE
Our People: International experience with payment systems (Singapore & UK)

TOTAL NPP COMMITMENT
ANZ digital channels from retail to institutional will be NPP enabled

DEVELOPMENT PROGRESSING WELL
NPP build underway in preparation for client integration

Note: NPP is still in development and aspects may change leading up to the time of launch.
UNCLEARED OTC DERIVATIVES
MARGIN REFORMS AND IMPLICATIONS
FOR COUNTERPARTIES

OTC UNCLEARED MARGIN REFORMS AND BACKGROUND¹

In March 2015, the Basel Committee on Banking Supervision (BCBS), part of the Bank of International Settlements (BIS), and the International Organisation of Securities Commissions (IOSCO) finalised a framework to reduce systemic risk by establishing a consistent global standard for margining of non-centrally-cleared derivatives. This was followed by final rules from the US Prudential Regulators (PR), the U.S. Commodity Futures Trading Commission (CFTC), and the Canadian, Japanese and Swiss regulators. The European Securities and Markets Authority (ESMA), the EU regulator has published near final rules. These have been accepted by the European Commission, but not yet approved by the European Parliament. The regulators in Singapore, Hong Kong and Australia have published draft rules which are at different stages of development. The regulator in India has published an initial consultation paper.

Rules for the exchange of margin on uncleared derivative transactions are highly topical across the industry right now and ANZ is pleased to provide a summary discussion of these rules. It should be noted that this summary is based on draft margin rules which may not necessarily reflect the final rules. You should check the latest position and rules in each applicable jurisdiction before making any decisions. The European Union (EU), Australia, Singapore and Hong Kong have indicated that there may be a delay in implementation of their margin rules beyond the indicative dates stated in this summary.

KEY DATES

The uncleared margin rules will require most financial firms and systemically important non-financial firms subject to the rules to exchange Initial Margin (IM) and Variation Margin (VM) when entering into uncleared OTC derivative transactions with other covered entities from around 1 March 2017 onwards for VM and from 1 September 2017 onwards for IM.²

The margin rules in a jurisdiction apply to covered entities and covered transactions when both parties to the contract exceed the implementation threshold in the relevant jurisdiction. Exhibit 1 sets out the implementation thresholds and implementation dates that apply under the various rule sets.

In general terms, the implementation thresholds reference the aggregate notional amount of uncleared OTC derivatives entered into by the covered entity during a certain reference period. The formulations do differ slightly between jurisdictions so it is important to refer to the rules in each applicable jurisdiction for details.

¹ This summary is of a very general nature and is not intended as advice. ANZ strongly encourages you to independently evaluate the appropriateness of this material to your circumstances. As margin reforms are complex, we recommend that you seek your own independent financial, tax or legal advice before making any decisions.

² The US PR and CFTC rules and Japanese rules started to apply to Phase 1 entities captured under those rules from 1 September 2016 for both IM and VM. Implementation of the EU, Hong Kong, Singapore and Australian rules have recently been delayed. For most captured counterparties this may potentially mean a very slight delay for implementation of VM beyond 1 March but the IM schedule is likely to proceed as planned.
For example, when ANZ faces a financial institution counterparty who has an aggregate notional amount of uncleared derivatives of USD12 billion, then VM exchange will be required from March 2017 and IM posting and collection will be required from September 2020.

WHO ARE AFFECTED?
The BCBS/IOSCO framework provides guidance to global regulators relating to the application of margin rules to financial firms and systemically important non-financial firms. Regulators have used this guidance to develop their own local rule sets. Although there is a great deal of similarity between the rule sets at a high level (i.e. the rules generally apply to financial institutions of some description), the precise definitions used for entity capture in the different rule sets differ and this makes identification of covered entities more time consuming. Counterparties may find they meet covered entity definitions in some jurisdictions but not others.

Financial firms such as banks, insurance companies and funds under most rules are likely to be considered in-scope. Any type of financial institution or financial firm should consider its status.

In all jurisdictions, the applicable minimum IM thresholds apply in determining IM capture. In certain jurisdictions (for example in Australia and Singapore based on draft rules), minimum thresholds also apply in determining VM capture. Under the draft Australian rules an aggregate notional amount of uncleared OTC derivatives of over AUD 3 billion is required before an entity becomes subject to the VM requirements.

Subject to substituted compliance, Australia and New Zealand Banking Group Limited (ANZBGL) expects to be directly subject to rule sets where it is required to comply because the counterparty is regulated in a particular jurisdiction, even where ANZ is not. For example, if ANZBGL faces a Swiss bank, although ANZBGL is not directly subject to the Swiss rules, ANZBGL would need to comply with the Swiss rules in order to maintain its trading relationship with the Swiss bank.

There may be limited exemptions from the margining requirements available for certain types of entities such as central banks and sovereigns.

WHAT TRANSACTIONS ARE COVERED?
The definitions used for determining what transactions are captured by the margin rules (i.e. covered transactions) differ between jurisdictions. As a general rule, subject to specific product exemptions, uncleared OTC derivatives transactions are captured.

There are product specific exemptions within the rules but these exemptions do differ between the jurisdictions. Some examples are:

- Physically settled FX forwards and FX swaps (other than non-deliverables forwards) are exempt from IM and VM requirements in the US, Japan, Canada, Switzerland and Singapore (based on the draft rules). Under the EU draft rules physically settled FX forwards and swaps are exempt from IM requirements but VM requirements will apply on a phased-in basis in the case of FX Forwards. Under the current drafts of the Australian and Hong Kong rules, physically settled FX forwards and FX swaps are exempt from IM requirements, but VM requirements will apply.
- Equity options are exempt under US rules and coverage under EU rules will be phased in.

2 Based on (draft) rules of the various jurisdictions as of August 2016.
To collect and post IM, parties will need to:

**IM documentation requirements**

ANZ and its counterparties will need to put in place regulatory compliant documentation in the form of a VM credit support annex (CSA) to enable exchange of VM by around 1 March 2017.

If ANZ does not already have an ISDA Master Agreement in place with the counterparty it will be necessary to negotiate:

- an ISDA Master Agreement, which defines the terms of trading in derivatives products and;
- a VM CSA which complies with applicable regulatory requirements.

If ANZ does already have an ISDA Master Agreement in place with the counterparty, but no CSA then it will be necessary to negotiate a new VM CSA which complies with applicable regulatory requirements.

**Initial Margin**

Initial Margin or IM is the amount of margin that is required to be posted and collected that covers the day-to-day change in net mark-to-market value of the portfolio of uncleared OTC derivatives transactions in place between the parties.

**Variation Margin**

Variation Margin or VM is an amount of margin required to be exchanged between parties that covers the day-to-day change in net mark-to-market value of the portfolio of uncleared OTC derivatives transactions in place between the parties.

**VM documentation requirements**

ANZ and its counterparties will need to put in place regulatory compliant documentation in the form of a VM credit support annex (CSA) to enable exchange of VM by around 1 March 2017.

If ANZ does not already have an ISDA Master Agreement in place with the counterparty it will be necessary to negotiate:

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If ANZ does already have an ISDA Master Agreement in place with the counterparty, but no CSA then it will be necessary to negotiate a new VM CSA which complies with applicable regulatory requirements.

**Key considerations**

The IM collateral holding structure works on a different legal basis to VM and/or existing CSA arrangements. IM is required to be segregated and held by an independent custodian. Posting and collecting of IM is required to occur for a covered entity relationship on a gross two-way basis (i.e. no netting of collateral transfers is allowable).

Further, counterparties that are required to comply with IM rules will need to appoint one or more custodians. This will involve execution of custody agreements between the counterparty and its custodian. It will also involve payment of custody fees to the custodian.

**CSA considerations**

When putting in place VM and IM CSAs, the relevant rules in each jurisdiction prescribe, among other things, which types of collateral are eligible, minimum transfer amounts, thresholds, frequency of margining, settlement timings and impact of FX haircuts on collateral.

**Eligible collateral**

Eligible collateral ranges from government debt, publicly traded debt of a certain quality, equity and gold. Although rule sets are reasonably aligned, there are some differences between definitions of each eligible asset and associated haircuts.

- For VM, ANZ’s preference is cash in USD
- For IM, ANZ’s preference is for high quality liquid assets in the G4 currencies.

Across the market firms are avoiding the use of cash for IM as it will attract significant capital costs. Cash held for IM by the custodian needs to be treated as a balance sheet liability, requiring capital, whereas non-cash collateral is seen as an asset.

**Frequency of margining**

Under most rule sets the valuation process is required to be run daily and some jurisdictional rules require settlement of margin calls on a T+1 basis. Eligible collateral and mechanics of transfer may need to be considered to meet this requirement.

**FX haircuts**

There are slight variances across rule sets, however generally the FX haircut will apply as follows:

- For VM, an additional FX haircut of 8% applies if the non-cash collateral currency differs from the currency of settlement, meaning underlying currency of the trade, CSA agreed currency or termination currency.
- For IM, an additional FX haircut of 8% applies if collateral currency differs from termination currency.

**IMPACT ON COUNTERPARTIES AND OTHER CONSIDERATIONS**

**Funding implications**

For counterparties who do not currently post margin, the new rules will have funding implications. In the case of VM, when ANZ is exposed to counterparties, counterparties will...
need to post VM to ANZ. This margin will need to be funded. Where counterparties must post IM, the funding implications are much greater for both ANZ and for the counterparty. IM is held in a segregated account and cannot be re-used.

With respect to regulatory constraints around timing and frequency of margin exchange (i.e. T+ 1 basis under some rules), some counterparties may need to consider pre-funding their margin payments.

Risk management and operational impacts
Counterparties will need to put in place operational and risk management processes necessary to comply with the margin rules. For counterparties who do not currently margin, changes in risk management and operations will be significant. For example:

- Counterparties will need the capability to calculate and/or check margin amounts; and
- Operational infrastructure to post margin within the short timeframe allowable will also be required.

IM is a new concept for the industry and could take substantial effort to put in place.

This includes developing:

- Capability to calculate and agree IM exposure using a risk based model (the ‘schedule approach’ is significantly more expensive);
- Custodial arrangements to facilitate prompt settlement of segregated margin transfers; and
- Dispute resolution mechanics.

Counterparty disclosures
Counterparties will be asked by ANZ to provide information (in the form of representations) confirming their regulatory status and aggregate notional amount of uncleared OTC derivatives. This may be provided through an industry lead process (similar to those which were used during the Dodd Frank protocol exercises). ANZ’s form of self-disclosure letter is expected to be available soon.

The information provided by each party to ANZ will be used to determine whether regulatory compliant CSAs are required and which jurisdictional rule sets apply. ANZ will need to perform due diligence on its counterparties and impacted jurisdictions.

Industry lead document negotiation processes
ISDA protocols are being developed to assist with the VM documentation implementation. It is possible that the protocol may have limited coverage (i.e. US, EU and Japanese rules). As a result, captured counterparties may need to bilaterally negotiate new documentation with ANZ. Unfortunately this will involve additional time and cost for counterparties. ANZ intends to prepare regulatory compliant documentation to start the negotiation process.
MANAGING INTEREST RATE RISK IN A LOW INTEREST RATE ENVIRONMENT – CONSIDERATIONS FOR LIFE INSURERS

BACKGROUND
Post-Brexit, as global interest rates were further lowered, life insurers continue to be challenged with managing their businesses in this unprecedented, persistent global low interest rate environment. Global interest rates have been on a downward trend during the past 10 years, and for most currencies currently close to all-time lows [Exhibit 1].

Life insurers face immediate two-fold challenges:

i. a structural challenge predominantly driven by the mismatch between long-dated liabilities vs. shorter dated assets. This mismatch tends to be exacerbated in declining interest rate environments, eroding insurer’s economic value of equity as the value of liabilities increases more than the value of shorter dated assets; and

ii. reduced investment returns in a low interest rate environment. This is a particular problem for life insurers which have large guaranteed return portfolios.

In markets with recent monetary tightening or the expectation thereof, insurers are concerned with sharp interest rate hikes. Any increase in policy surrenders could potentially result in realised losses due to forced selling of favourable yielding fixed income assets currently held in order to cover surrender benefits.

THE IMPACT ON LIFE INSURERS IN ASIA PACIFIC
Whilst the effect on life insurers across Asia-Pacific varies greatly from country to country and insurer to insurer, the impact tends to be driven by two major factors:

EXHIBIT 1:
Global 10 year interest rate swap rates (%)

Source: Bloomberg (20 Sep 2016)
1. The existing insurance liability composition and its sensitivity to interest rates, e.g. guaranteed products vs. unit linked, term vs. yearly renewable policies

Duration risk is less of an issue for the Australian and New Zealand life insurance markets, where many insurers have negative life insurance contract liabilities. Such negative contract liabilities reflect estimated net present values of policies in favour of the insurer. Consequently, their liabilities decrease as interest rates fall. Additionally, many insurers have portfolios largely consisting of yearly renewable term policies, reducing the importance of long term investment returns compared to insurers with large portfolios of long term, guaranteed return products. Hence, the principle effect of low interest rates in Australia and New Zealand is decreased interest income on investment portfolios which are heavily weighted towards cash.

At the other end of the spectrum are markets where life insurers have significant whole of life or guaranteed return portfolios. This usually coincides with large positive life insurance liabilities since these policies having been priced with significantly higher interest rate assumptions. These legacy portfolios are highly vulnerable to low or declining rate environments. These issues are prevalent in the life insurance markets in Taiwan, Japan and South Korea.

2. The stage of development of accessible capital markets, e.g., emerging markets in Asia Pacific facing shortages of domestic high grade assets, or liquid markets for hedging

In Asia Pacific, Australia, Hong Kong and Singapore for example, tend to have higher proportions of high grade assets in the domestic capital markets, supported by the relative high country credit ratings or issuance by state institutions.
owned entities/governments. Markets in South East Asian countries are developing, reflecting limited availability of high grade investment assets, often constrained by the country credit ratings. This could have been one of the drivers for insurers in such markets to look offshore for assets. Please refer to Exhibit 2.

WHAT IS THE SOLUTION?
While there may not be a single solution that solves the existing issues of life insurers, there are a range of typical solutions considered by insurers [Exhibit 3]. Long-term solutions tend to involve strategic changes to a life insurers’ businesses.

ADDRESSING THE DURATION GAP
For example, rebalancing product portfolios away from guaranteed products, redesigning product features to limit costly embedded financial options and including terms in policies which shift the burden of lower rates to policyholders will considerably alter the product offering of life insurers. However, this approach would require time to meaningfully alter the life insurer’s product portfolio composition due to the “legacy” portfolios.

Today’s life insurers are able to learn from the Japanese life insurance industry in the 1990s. In the 1980s, Japanese life insurers had offered long-term savings products with guarantees as high as 8%. By 1999, interest rates had fallen as low as 3% causing many small and medium sized life insurers to fail. Those that survived were those that quickly changed their product mix, cut costs and re-priced products. Also, importantly, the survivors were the insurers who locked interest rates in early – while interest rates were low, they continued to decline and have since yet to recover.

ANZ has been discussing hedging solutions, using interest rate swaps and derivatives such as options/swaptions to address the asset-liability duration gap. Life insurers could use long tenor interest rate swaps to extend the duration of the asset portfolio, and thereby reduce the duration gap. The flexibility of entering into swaps (irrespective of historically low rates) when considering the impact on available capital for both assets and liabilities, generally provides many life insurers with more confidence as opposed to the more significant risk associated with a potential rise in interest rates.

However, the challenge in Asia Pacific markets is the limited liquidity in domestic long-dated interest rate instruments making it difficult for life insurers to hedge meaningful parts of their investment portfolios and address duration gaps. In the presence of tight liquidity conditions when putting on any sizable hedges from a markets perspective, requires careful planning and execution to ensure that executed transaction prices do not become punitive.

Finally, take up of such hedging solutions have been relatively limited in Asia Pacific as compared to Europe or the US. This is mostly driven by regulatory benefits that can be achieved in the developed market Solvency/RBC frameworks combined with deeper liquidity in such instruments. However, potential convergence of global insurance regulatory standards considered by the IAIS, and the continued adoption and evolution of risk based capital frameworks in Asia Pacific (e.g. Singapore’s RBC2 and Hong Kong’s RBC consultations) is expected to increase incentives for life insurers to consider using such hedging solutions, as the evolving regulatory approaches will be a significant factor in managing capital and enhancing policy holder protection.

OPTIONS IN THE LONG END: ALTERNATIVE ASSETS AND LOANS TO ADDRESS DURATION AND YIELD CHALLENGES
Insurers will have to re-think their asset allocation and risk management strategies to cope with the “new normal” of today’s market environment. In the long run, insurers are likely to expand asset allocation to alternative assets and loans to overcome the existing duration gap issues.
Alternative assets, such as infrastructure or project finance loans, can offer attractive yields, long term cash flows and desired asset liability matching against interest rate fluctuations. As restrictive regulations on offshore investments are eased in markets such as mainland China, Taiwan and Korea, alternative assets are likely to become more mainstream.

Some of the portfolio reallocations are expected to follow incentives provided by insurance regulations. For example, the China Insurance Regulatory Commission (CIRC) Risk Oriented Solvency System (“CROSS”) has credit risk based capital charges that are quite beneficial for infrastructure (1%-13%) and real estate exposures (8%-12%), as compared to charges for equity exposures of 31%-48%; the spate of Chinese insurer’s offshore search and investments in such assets could have been partly driven by such regulatory incentives.

Regulations are significantly increasing capital costs for most banks. Consequently, banks are reallocating capital from low return, capital intensive businesses, such as infrastructure term lending or project finance, to more capital efficient business such as cash management and transaction banking. This reallocation provides an opportunity for insurers to fill the funding or capital needs of companies where banks have reduced the area of product offerings. “However, Banks can still play an important role with existing borrower relationships: they can be the bridge between such borrowers and insurers, by matching and structuring the long term funding needs of companies with the long term investment needs of insurers”, says Elodie Norman, Head of FIG Hong Kong.

The potential challenge for insurers to partake in a scalable manner in the Asia Pacific alternative and loan markets in its present state is the lack of standardised documentation for the currently individually highly customised loan and alternative transactions. Lacking such a standard (e.g. like US Private Placement documentation) would require insurance investment teams to either set up their own credit administration operations, similar to banks, or outsource to financial service providers that can offer such services.
CURRENCY RISK MANAGEMENT AS A VALUE LEVER TO MANAGE FUND RETURNS

BACKGROUND
Fund managers have been targeting developing/emerging market assets for their growth potential, providing investors an alternative to the relative lower growth experienced in developed markets. This is evident from the flurry of activity related to fund raising targeting emerging market exposures in the past 5 years. For example, Emerging Markets-Focused Private Equity funds raised aggregate capital of USD272.3 billion during 2011-151.

Most international funds tend to use a G4 currency as the capital currency for the fund, mostly USD, while investments target non-G4 currencies, e.g. Asia Pacific currencies linked to the country of the underlying asset investment.

While assets in emerging markets, using local stock market indices as proxy, in the past decade generally experienced double digit annual growth based on investment periods of 7 to 10 years2, annualised foreign currency returns generally experienced single digit depreciation. Currency risk management under those circumstances may not to be a major focus, likely due to the comfort derived from the significantly higher local asset returns as compared to the currency depreciation. Exhibit 1 below shows average annualized currency (vs USD) and select local stock market3 returns (in local currency terms) for investment periods that commenced between 7 and 10 years ago.

WHILE LOCAL ASSETS MAY GENERATE POSITIVE RETURNS, CURRENCY RISK CAN DRAG THE OVERALL RETURN IN THE CAPITAL CURRENCY DOWN, IF LEFT UNMANAGED.

1 Preqin Special Report: Private Equity in Emerging Markets (June 2016)
2 Past performance is not indicative of future performance
3 Local stock market indices are the relevant stock market indices of China, India, Malaysia, Japan, Thailand, Australia and the United Kingdom.
EXHIBIT 1:
Average annualised holding period returns\(^4\) (7 and 10 years)

Source: Bloomberg (9 Sep 2016), ANZ Analysis

For example, considering a 10 year holding period for Indonesia, even though the Indonesian stock market returned on average ~14% p.a. in Indonesian Rupiah (IDR) terms, the overall return in USD terms was ~7% p.a., only half the local asset return, due to an average ~6% depreciation p.a. of IDR. As such, while local assets may generate positive returns, currency risk can drag the overall return in the capital currency down, if left unmanaged.

In recent years, currency risk management has become more topical for investors and fund managers. This is driven by generally low or negative local asset returns across the world, combined with relative high depreciation of foreign currencies. In such circumstances, currency returns can dominate and drive the overall return in USD. Exhibit 2 shows average annualized currency and local stock market returns, again being a proxy for local asset returns, for investment periods that commenced 1 to 2 years ago.

Based on a 1 year holding period, negative local asset returns are exacerbated by currency depreciation, which were of similar magnitude to the returns, resulting in significantly worse asset returns in capital currency terms. For example, returns for the Malaysian stock index, expressed in USD,

EXHIBIT 2:
Average annualised holding period returns\(^4\) (1 and 2 years)

Source: Bloomberg (9 Sep 2016), ANZ Analysis

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\(^4\) Returns are calculated based on the average of 365 observations, with each observation spanning the holding period. For example, the 10 year average annualized FX return for IDR is based on the average of: FX1 = IDR[9Sep16]/IDR[9Sep06], FX2 = IDR[8Sep16]/IDR[8Sep06], ………, FX365 = IDR[9Sep15]/IDR[9Sep05]. This approach ensures that returns are not biased by one specific entry date, rather it averages across each possible entry date over a 365 period for the given holding period.
EXHIBIT 4:
Multiplier impact from FX return on asset return (capital currency)

Would have been ~(-20)% with the local market return at ~(-6)% and FX return of ~(-15)% dominating the asset return in USD. *The lesson from the past 2 years is that asset returns (in capital currency) in an environment of low or negative local asset returns, tend to be exacerbated by currency risk when left unmanaged.*

**CURRENCY RISK A MAJOR DRIVER OF ASSET RETURNS EXPRESSED IN CAPITAL CURRENCY**

To understand the impact of currency on asset returns expressed in the capital currency, we lay out the two major drivers in Exhibit 3. It is clear from the formula that currency (FX) returns has a multiplier effect on asset returns (in capital currency terms). As such, depending on the magnitude of FX returns, currency could potentially significantly enhance or depress asset returns (in capital currency terms).

To illustrate the multiplier effect FX returns can have on the asset return (in capital currency), Exhibit 4 shows the impacts for different investment periods on the x-axis, where the bars show the impact for positive and negative FX returns of 5%. It is evident that even relative small FX returns of +/- 5% p.a. can significantly affect the overall returns in capital currency, particularly over longer investment periods.

**EXHIBIT 3:**
Major drivers of asset return in capital currency terms

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Asset Return (Capital currency) = (1 + Asset Return) (Local currency) X (1 + FX return) (Capital currency) -1
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Source: ANZ Analysis
Major risk management considerations

For example, over a 10 year holding period, negative FX returns of 5% p.a. can reduce the cumulative asset returns (in capital currency) by 40%, while positive FX returns of 5% p.a. can magnify asset returns (in capital currency) by 163%.

“Given the potential significant impact currency risk can have on fund returns, when targeting foreign assets, fund managers can use FX risk management as an additional lever to manage overall fund returns and ultimately, the quality of earnings of the fund manager itself”, says Robert Tsang, Director in FIG Client Insights, ANZ.

The implication is that fund managers have an opportunity to generate value from both asset selection as well as proactive currency risk management. Currency risk management provides fund managers additional tools and flexibility to achieve target fund returns and corporate objectives. Further, given competitive pressures and evolution of investor expectations, some level of currency risk management capabilities could become a minimum requirement from investors going forward.

**CURRENCY RISK MANAGEMENT CONSIDERATIONS**

When putting in place a Currency Risk management framework and process, it is helpful to consider five key areas, as illustrated in below exhibit.

1. **Objectives**: what objectives need to be addressed by currency risk management, e.g. maximizing fees, stabilising returns, etc.
2. **Targets**: based on the objectives, what are target measures, e.g. fund returns, annual fee income, currency risk appetite: how much volatility from FX do we find acceptable and how do we measure this, etc.
3. **Tools and set of strategies**: what tools and instruments are available to manage the currency risk, e.g. Forwards, options, etc; and what strategies can I consider, e.g. no hedging vs. combination of various tools available
4. **Scenarios and internal views**: what are the potential scenarios that could materialise, both based on internal views/convictions as well as external market information
5. **Impact and decisions**: for each of the scenarios defined, what is the impact on the targets based on differing strategies, and which strategy gives the most beneficial outcomes

Once the abovementioned has been established, it will be easier for portfolio managers and support functions to align on risk management objectives and specific steps and actions to consider, and to monitor and track actual outcomes against targets, and where necessary, adjust the risk management decisions.

**HEDGING TRANSACTION CONSIDERATIONS**

Regarding execution of currency risk hedging transactions, it is important for the fund manager to consider the hedging rationale, the uncertainty of the asset value or timing of valuations, available financial resources for transaction settlements, the creditworthiness of your counterparty as well as the fund managers/fund entity own credit standing.

- **Hedging rationale**: is the fund aiming to hedge at a fund portfolio level or at the individual asset level? Is the aim to hedge the fund value or is the aim to hedge cashflows from the asset or debt at the asset level? Suitability of hedging tools depends on the hedging rationale: e.g. if a fund is looking for tail risk protection on the NAV of the fund, currency options could be more suitable as compared to forwards, as one would be able to define the protection level, e.g. 25% depreciation of the currency, rather than agreeing on a market determined forward price today.

- **Uncertainty of asset value/timing of valuations**: it is important to determine the expected asset valuations over time, as well as which timing the fund cares about, to ensure these are matched with the values, tenors and timing of the hedging tools. For example, if a fund comprises assets with observable prices, and valuations are reported on a quarterly basis, hedging instrument tenors could be matched to the reporting periods.

- **Available financial resources**: ensure there are sufficient cash reserves or expected cashflow streams to settle potential FX hedging transaction obligations. For example, while FX forwards tend to be favoured given no upfront cash layout, it does introduce risk to the fund, as at maturity, settlement obligations are uncertain and could surpass available cash reserves. “You do not want to end up in a position where the asset and currency have appreciated, while the hedging transaction obligation results in substantial cash requirements forcing you to either raise capital or worst case, sell the asset, just to service the hedging transaction” says Nick Angove, Head of FIG FX Advisory, ANZ.
Currency risk has been front of mind for investors and fund managers in the past year given persistent bouts of market volatility experienced throughout the world. Further, subdued global growth and uncertain outlook of global/regional economies and markets are making currency risk management an important tool that provides fund managers with an additional lever to manage fund returns.

ANZ has been actively engaged in currency risk management discussions and activities with global, regional and local fund managers targeting foreign assets. ANZ's engagement ranges from sharing currency risk practices of banks and funds, who have historically managed this type of risk, and how the fund management industry can apply such tools and lessons learnt; impact assessment of hedging strategies to executing hedging transactions for clients.

"These are exciting times for fund managers. Whilst currency risk can be seen as a potential drag on fund returns, building capabilities to manage this risk could be seen as an opportunity to strengthen the fund manager's value proposition in the current market environment," says Mark Harding, Head of FIG South East Asia, ANZ.

- **Credit risk considerations:** consider highly rated counterparties to mitigate credit risk to the fund from hedging transactions, particularly in cases of long dated hedges. Further, hedging capacity of bank counterparties is typically driven by the credit standing of the fund's entity. In unsecured transactions, typically credit limits are based on the size and quality of the fund or the investor committed capital base (for private equity or specialty funds). Low creditworthiness of fund entities could affect credit limits and credit charges that are incorporated in to the hedging transaction prices.
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