Regulatory Impact on Australian FI Markets

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September 2010

Westpac InstitutionalBank

Australian Banks – Regulatory Capital

Regulation: An Overview of the Australian Perspective

Capital: Impact on Bank Capital Requirements & Instruments

Liquid Asset Requirements: What they are and their impact on AUD CGS, Semi and Supras

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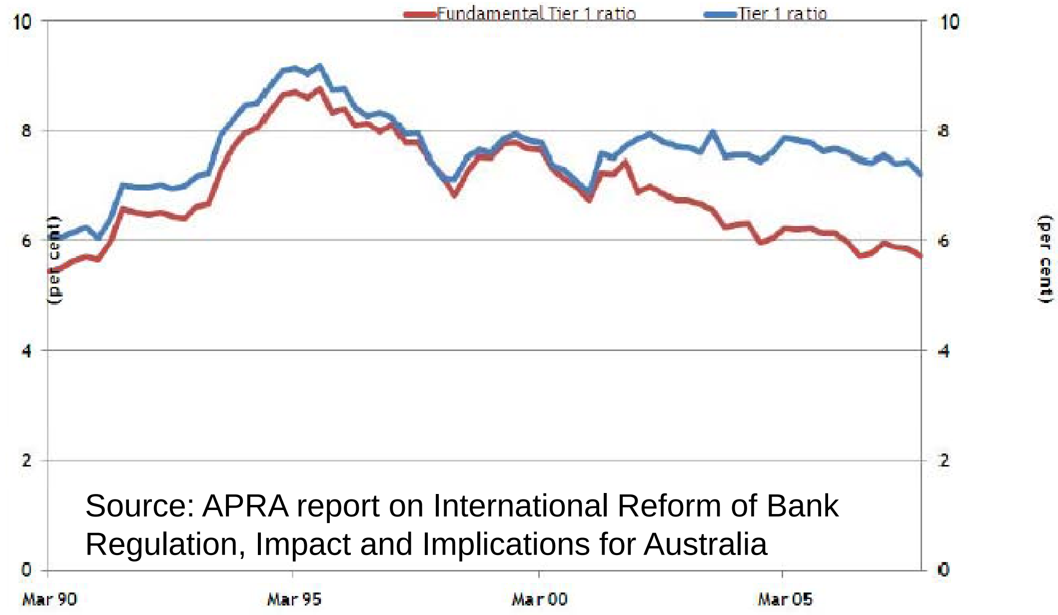
APRA impact assessment – September 2010

Capital Changes	Impact	Comment
Ordinary Capital within Tier 1	Manageable	Basel currently allows 50% non equity in capital, APRA is 25%.
Increase in Tier 1 Ratio	Zero	Banks are well in excess of the 4% minimum
Leverage Ratio	Zero	At an estimated 3% level there is no threat
Counter Cyclical Buffers	Unknown	Need more detail
Loss Absorbency	Unknown	Need more detail

Outcome:

- APRA would prefer Australia to meet all capital requirements by the Jan 2013 implementation date.
- Transitional measures for residual Tier 1 will provide support for the initial 2-3 years.
- Will this be adjusted for the BCBS timetable?



Source: APRA report on International Reform of Bank Regulation, Impact and Implications for Australia

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Tier 1 Capital

- APRA provided its estimate of capital for Australian listed ADI's which is contained in the table below.
- It has estimated existing system tier 1 capital at 9.2% which would drop to 7.0% after taking into account changes to the definition of capital under Basel 3.
- After writing back eligible residual tier 1 capital, system capital would return to 8.6% for a transition period of 2-3 years providing adequate time to allow for any additional capital requirements.

Tier 1 Capital for Australian Listed Banks		
Existing Tier 1	9.2%	
Proforma Tier 1	7.0%	Post Basel 3 adjustments
Post Transition Tier 1	8.6%	Writeback eligible residual Tier 1 for transition

- Note: This is based on APRA calculations including all the downside implications of Basel changes and none of the upside (ie IRRBB inclusion / capital deductions). Inconsistency with global peers will be maintained.
- Charles Littrell's view: APRA is "inconsistent from the rest of the world in that our major private banks do not fail every generation".
- "We don't go out of our way to be cruel to banks but productive cruelty is sometimes useful."

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Tier 1 Capital (Basel II)

- The major banks remain well capitalised with the conservatism built into APRA capital measurement proving supportive as global capital requirements evolve.

Existing APRA Rules – Fundamental capital already significant

- 8% Prudential Capital Ratio
- Minimum 50% to be Tier 1 (4%)
- Maximum 25% of Tier 1 to be Residual
- Maximum 15% of Tier 1 to be Innovative (call)

- Where do we sit?

Tier 1 Capital	Westpac	CBA	NAB	ANZ
Fundamental Tier 1	20,631	19,950	23,006	21,147
Residual Tier 1	4,432	6,651	7,246	5,481
RWA	290,097	290,821	332,833	248,961
Tier 1 Ratio	8.6%	9.1%	9.1%	10.7%
Fundamental Tier 1	7.1%	6.9%	6.9%	8.5%
Residual / Tier 1 (Max 25%)	17.7%	25.0%	24.0%	20.6%
Innovative / Tier 1 (Max 15%)	10.0%	13.0%	14.9%	6.3%

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Tier 2 Capital

- No step up feature available
- Loss absorbing

BCBS Proposal - Tier 2	APRA Rules (current)
Minimum maturity of 5 years	✓
Straight line amortisation inside 5 years	✓
Calleable after minimum of 5 years	✓
Call requires supervisory approval	✓
No incentives to redeem	✗
and	
Regulatory loss absorbant	✗

Loss absorption:

- Whilst regulatory capital instruments (tier 1 & tier 2 non common stock) would naturally absorb losses on a gone concern basis (liquidation / insolvency), recent evidence has demonstrated that in the event of public sector capital injections, regulatory capital instruments were largely untouched.
- BCBS believes that in order to qualify as regulatory capital, instruments must be capable of bearing a loss if the banks are incapable of supporting themselves in the public market (ie, require state support).
  - All reg capital instruments (tier 1 & tier 2) must have a trigger that requires write-off on the occurrence of a trigger event.
  - Any compensation must be in the form of common stock.
  - The trigger event will be the earlier of:
    - The decision to make a public sector injection of capital.
    - The decision that a write-off is necessary as determined by the regulator.

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BASEL COMMITTEE ON BANKING SUPERVISION

BANK FOR INTERNATIONAL SETTLEMENTS

Annex 2: Phase-in arrangements (shading indicates transition periods)

(all dates are as of 1 January)

	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**As of 1 January 2019**
Leverage Ratio	Supervisory monitoring		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum Common Equity Capital Ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer						0.625%	1.25%	1.875%	2.50%
Minimum common equity plus capital conservation buffer			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)				20%	40%	60%	80%	100%	100%
Minimum Tier 1 Capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital			Phased out over 10 year horizon beginning 2013						
Liquidity coverage ratio	Observation period begins				Introduce minimum standard				
Net stable funding ratio		Observation period begins						Introduce minimum standard	

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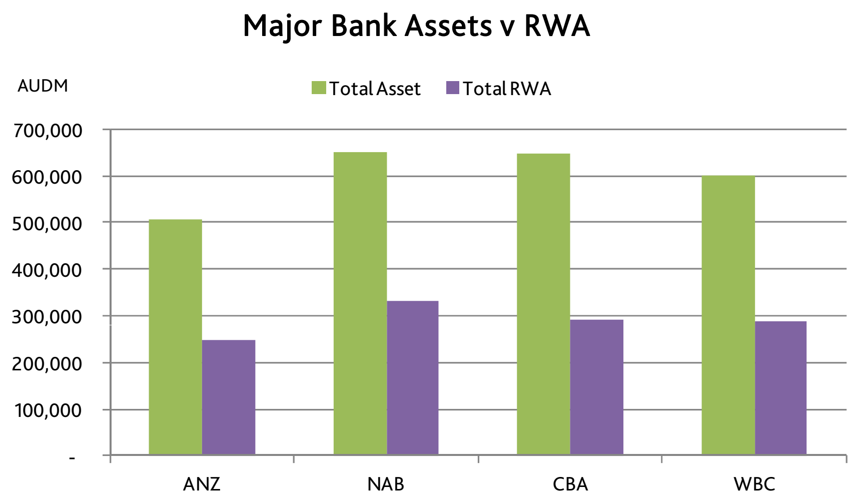
Leverage Ratio:

What had originally been a major concern for APRA has been downgraded to a “zero” threat as a result of the absolute level of the leverage ratio (3% tier 1 to book proposed) and long transition period.

- APRA not convinced on usefulness of a non risk weighted ratio.
- Domestic banks run large mortgage books, lifting impact of leverage ratio.
- APRA not fighting Basel as absolute level is not prohibitive (calculate 4-4.5% for major banks currently).
- Ratio will be measured from January 2013-2017 and disclosure required from 2015. Pillar 1 treatment is only proposed from 2017.



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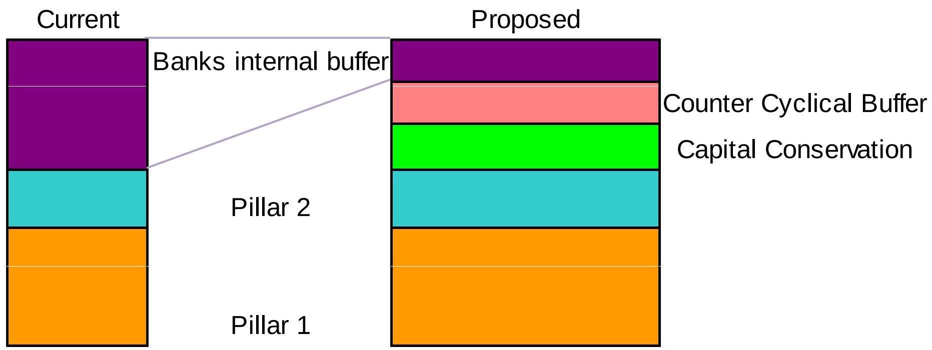
Regulatory buffers and cyclicality

Capital Conservation Buffer: APRA stressed that these “buffers” were regulatory requirements. Breaching the buffer will directly impact a bank’s ability to manage its own capital by placing restrictions on distributions, buyback and discretionary bonuses depending on the level of the breach. Final impact on ADI’s will be determined by the absolute level of the buffer.

Countercyclical Buffer: Designed to provide an additional buffer during periods of heightened credit growth. APRA will have the ability to raise capital requirements during periods of excess system credit growth, essentially providing an additional monetary policy tool.

Pillar 2 requirements: APRA was keen to point out that it also conducted private Pillar 2 capital activities in determining the appropriate Pillar 2 buffer to the Pillar 1 quantitative limits.

Capital Requirements including Pillar 2 requirements



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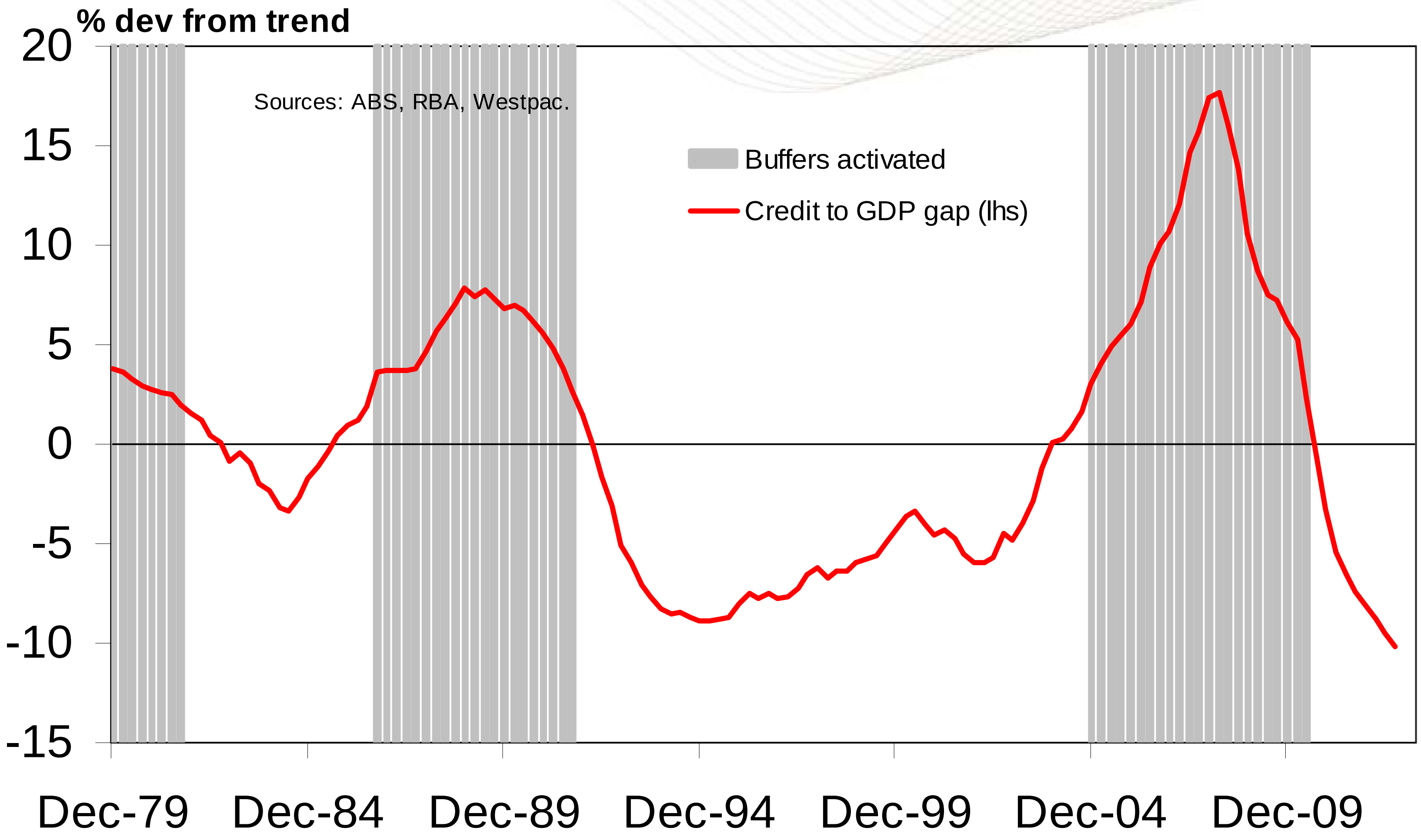
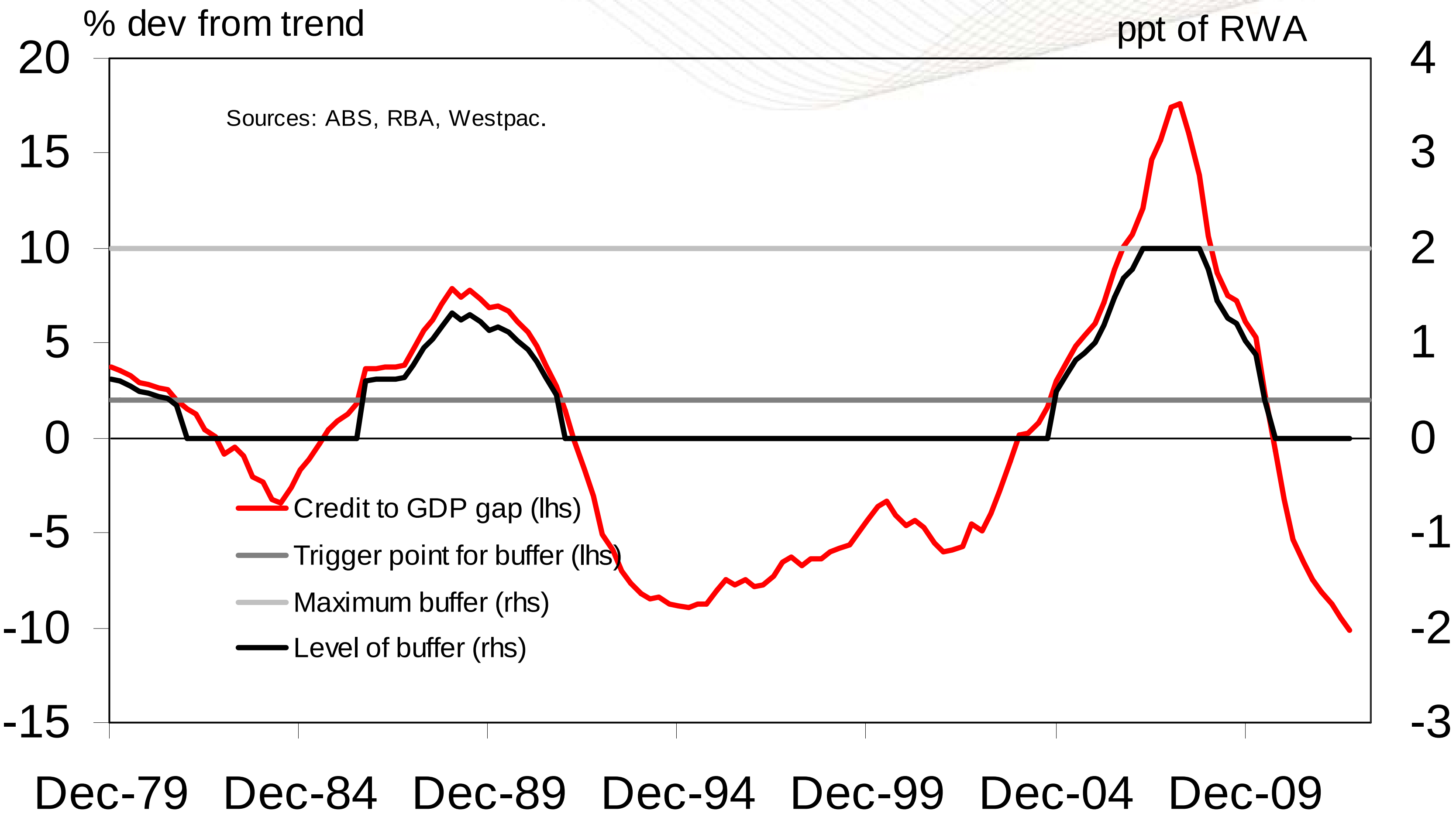
Aust Credit to GDP: deviation from trend



Countercyclical capital buffers for Aust



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Expectations - Issues:

- **Investor base:** All reg capital instruments become converts on loss absorbency. Investors potentially required to be capable of receiving equity to hold the bonds.
- **Price differentiation:** Margins to reflect banks with a “riskier” business profile and more volatile for those banks approaching regulatory pressure (conservation buffers).
- **Equity:** Pressure to retain strong capital base or lose control of equity flows (dividends).
- **Grandfathering:**
  - Dated LT2 has a limited life. MQG 10yr bullet suggests longer phase out period.
  - Tier 1: APRA statement on grandfathering needed. Tier 1 securities have rallied, many through par as perpetual instrument becomes finite.
- **Tax deductibility?** Equity treatment, therefore not deductible?

Australian Banks – Regulatory Liquidity

Liquidity Coverage Ratio (LCR):

- **Definition:**

$$\frac{\text{Stock of high quality liquid assets}}{\text{Net cash outflows over a 30-day time period}} \geq 100\%$$

- **Purpose:** To promote the short-term resiliency of the liquidity risk profile of institutions by ensuring that they have sufficient high quality liquid resources to survive an acute stress scenario lasting 1 month.

Net Stable Funding Ratio (NSFR):

- **Definition:**

$$\frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} \geq 100\%$$

- **Purpose:** To promote resiliency over longer-term time horizons by creating additional incentives for banks to fund their activities with more stable sources of funding on an ongoing structural basis.

System Liquidity Ratios for Listed ADIs

	LCR	NSFR
Dec 09	33%	67%
Jul 10	38%	85%
Required	100%	100%

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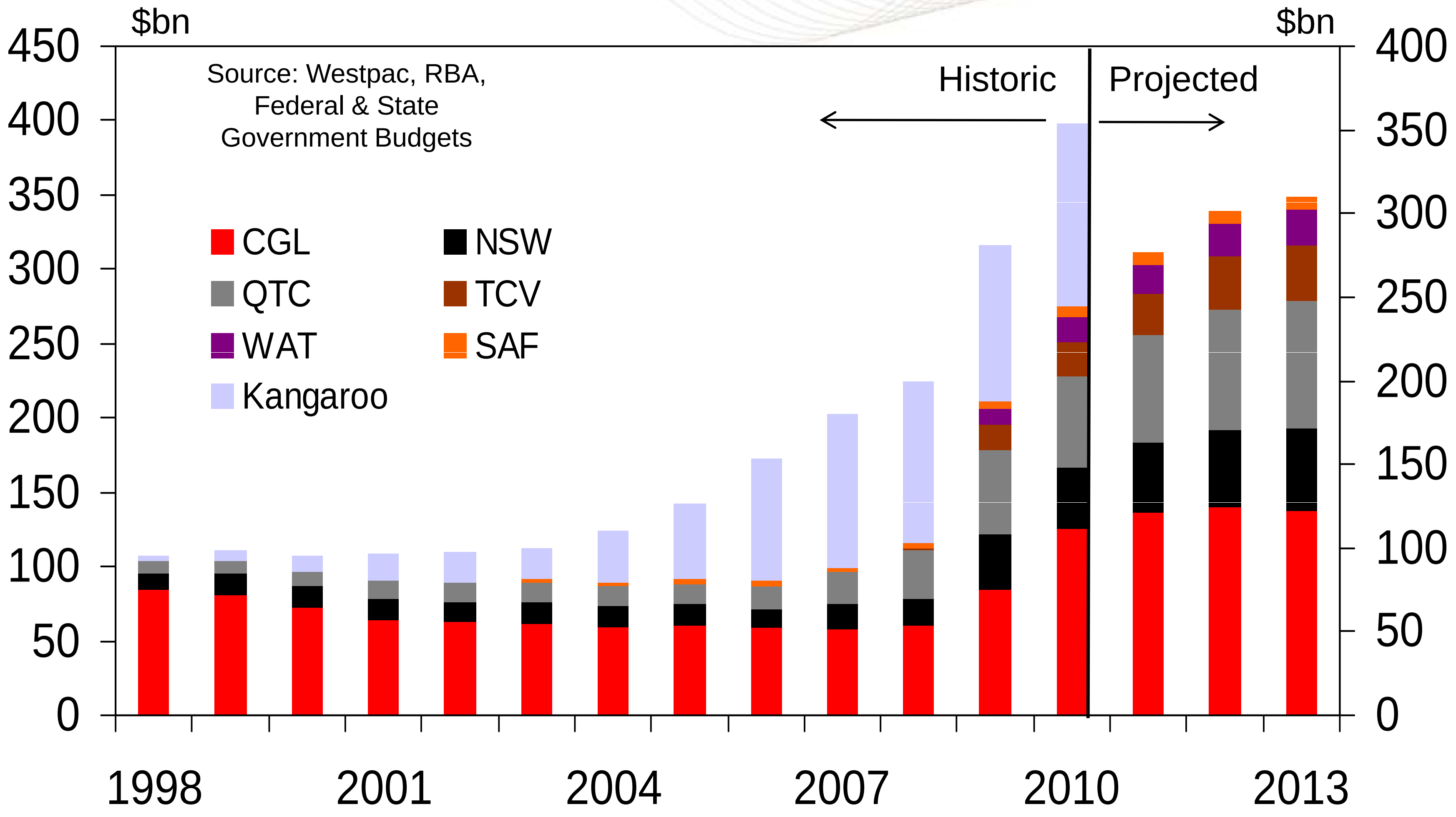
Australian Banks – Regulatory Liquidity

Definition of Liquid Assets

Level 1: Minimum 60% of qualifying assets in the liquid asset portfolio

- Cash
- Central Bank Reserves, where feasible
- Marketable securities of sovereigns, central banks, non-central government public sector entities (PSEs), BIS, IMF, EC, multi-lateral development banks as long as the following criteria are met:
  - They carry a 0% risk-weight under the Basel II standardised approach
  - Deep repo markets exist for the securities.
  - Securities are not issued by banks or other financial service entities.
- Government or central bank debt issued in domestic currencies by the country in which the liquidity risk is being taken or the bank's home country.
- Domestic sovereign debt for non-0% risk weighted sovereigns, issued in foreign currency, to the extent that this currency matches the currency needs of the bank's operations in that jurisdiction. **"BCBS Update" 26 July 2010**
- In Australia this would include CGLs, Semis and multilateral development banks that qualify for the zero risk weighted definition
  - Commonwealth Government Securities & All Semis
  - Supranational Issuers e.g. EIB, IBRD, ADB, etc

A$ Outstandings: Not enough Level 1 liquid assets



Australian Banks – Regulatory Liquidity

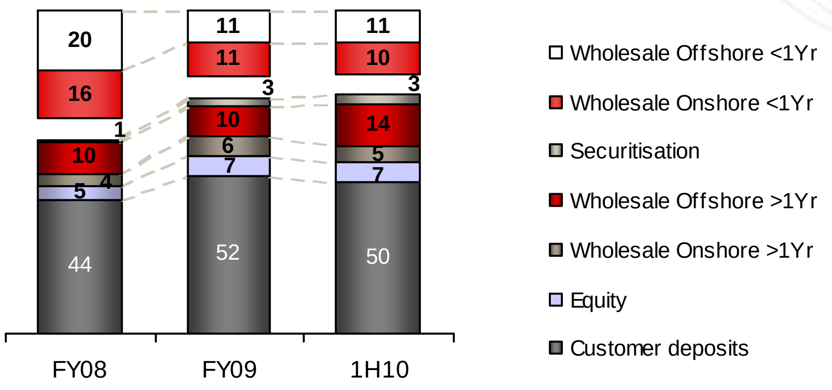
Definition of Liquid Assets cont’d

Level 2: Maximum of 40% of qualifying assets: “BCBS Update” 26 July 2010

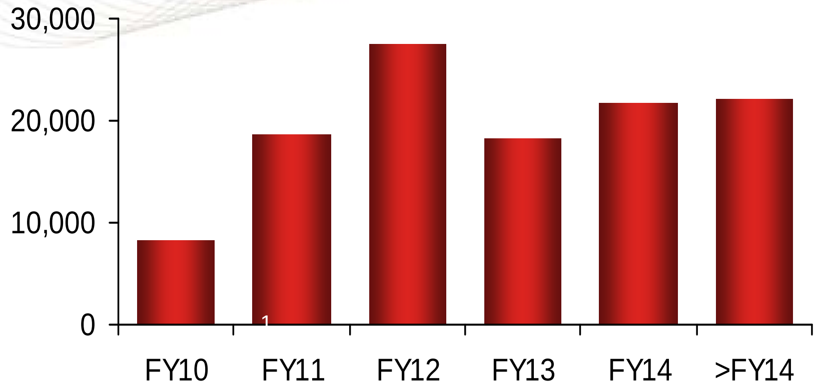
- Government and PSE assets qualifying for the 20% risk weighting under Basel II’s standardised approach for credit risk. A 15% haircut applies.
    - Agencies would qualify.
- High quality non-financial corporate and covered bonds not issued by the bank itself (e.g. rated AA- and above), also with a 15% haircut.
- Other assets will be considered, but their eligilibility will be determined by utilising both ratings and additional criteria as outlined in the December proposal (bid-ask spreads, price volatility, etc). **Refer next slide.**
- **There are few, if any assets that are viable under this definition in Australia at this stage.**
- **APRA pointed out that all level 2 assets must still meet market based liquidity criteria and therefore no assets were automatic inclusions.**

Liquid assets and funding profile - WBC

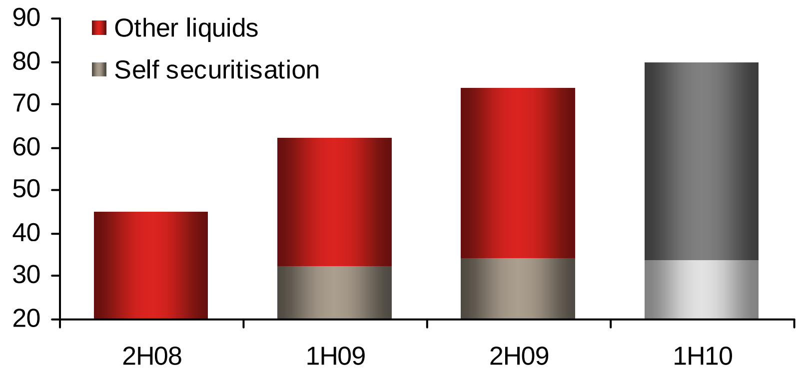
Funding composition by residual maturity[1] (%)



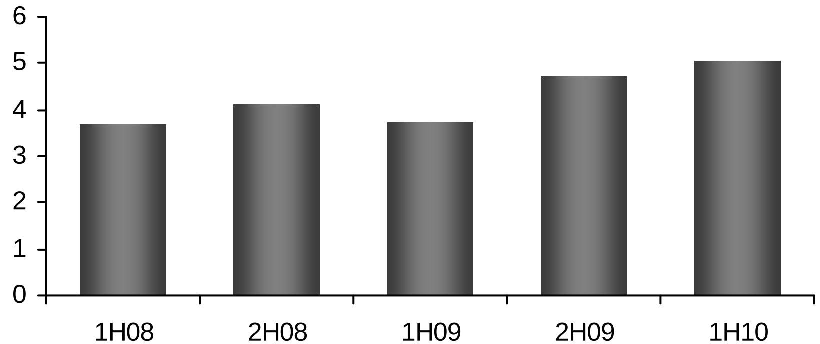
Term debt maturity profile ($bn)



Liquid assets[4] ($bn)



Weighted average maturity of new long term wholesale funding (years)



1 Represents % of total funding including Equity and no netting of excess liquid assets. 2 Stable funding ratio calculated on the basis of customer deposits + long term funding + equity + securitisation, as a proportion of total funding. 2008 comparatives do not include St.George. 3 Equity less FX translation, Available for Sale Securities and Cash Flow Hedging Reserves. 4 All liquid assets are repo eligible with a central bank. 2008 comparatives do not include St.George.

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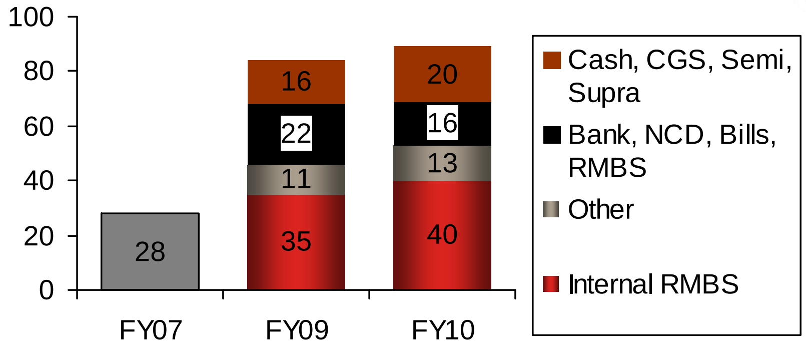
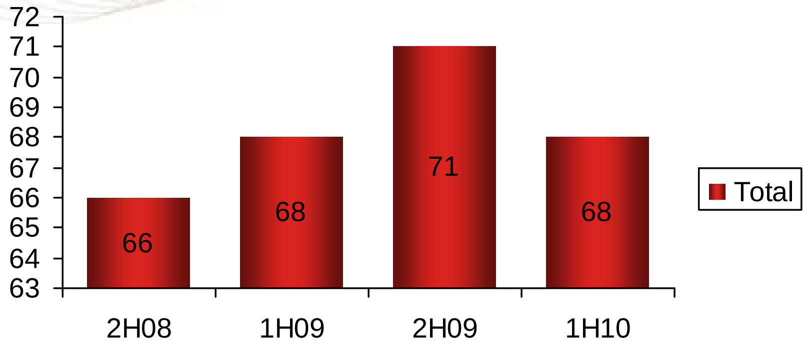
Liquid assets and funding profile – Other majors

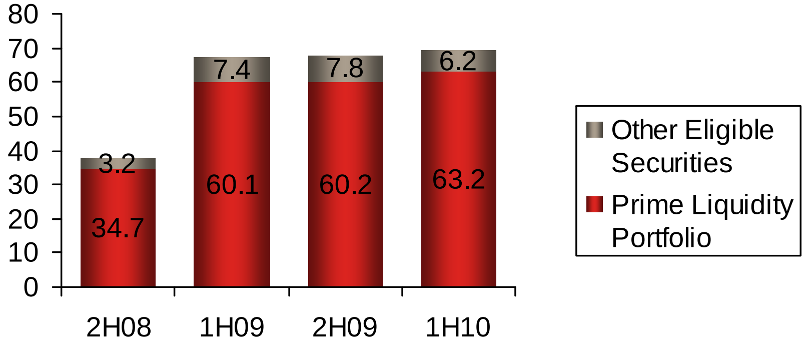
CBA Liquid Asset Holdings ($b)



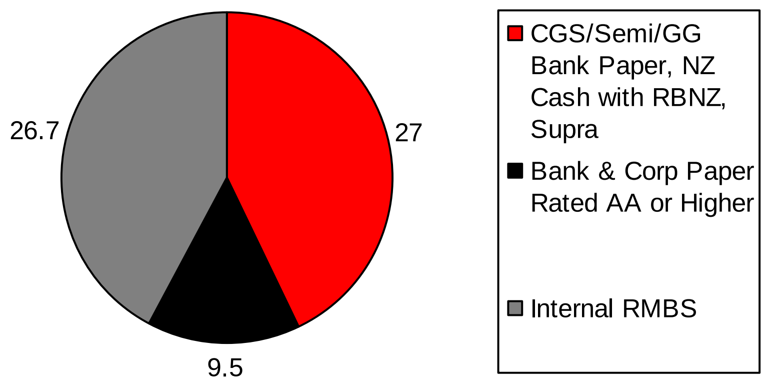
NAB Liquid Asset Holdings ($b)



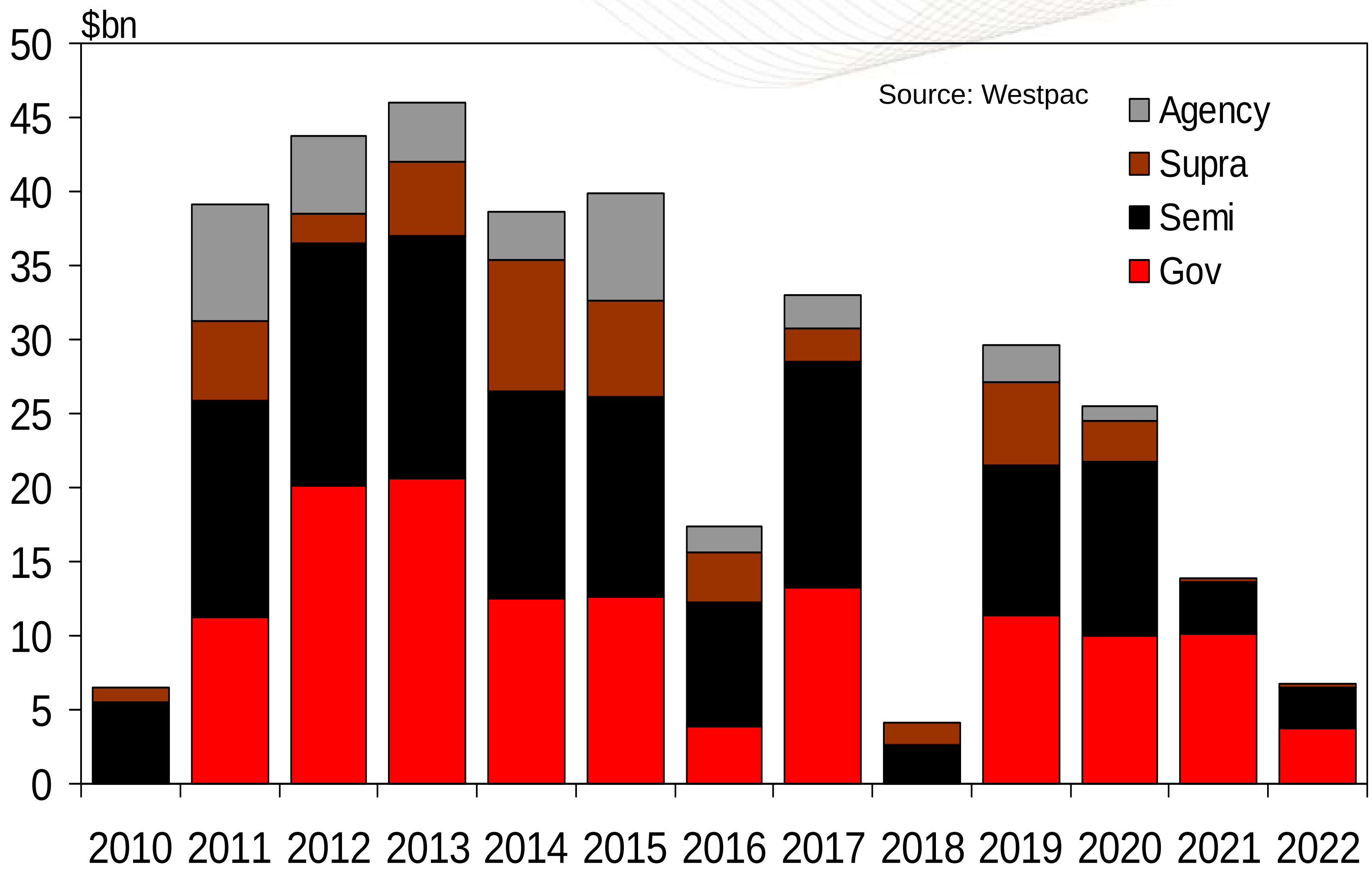
ANZ Liquid Asset Holdings ($b)



Composition of ANZ Prime Liquidity Portfolio ($bn)



Upcoming AUD Fixed Income Maturities



Australian Banks – Regulatory Liquidity

The “Australia clause”

The BCBS will “develop standards for review at the September 2010 BCBS meeting for jurisdictions which do not have sufficient Level 1 assets to meet the standard”.

- This is to be resolved at the September BCBS meeting (September 20/21)
- APRA said that it would be wrong to view this as providing a new or separate standard for Australia.
- It reiterated the point that assets must meet market based criteria for liquidity (refer next slide) and that financial institutions debt has been explicitly excluded.
- Covered bonds?
  - Offer an alternative (AUD20-25bn for major banks at a 4% limit) but this requires a change to the banking act, and APRA don’t like it.
  - APRA suggested that even if the government chose to change legislation and allow covered bonds, there was no automatic assumption the bonds would be liquid (despite European evidence to the contrary).
- The main point is that there needs to be **equivalent** alternative assets.
- APRA, when asked to provide a list of possible options for alternative liquid assets offered a polite “no”.

Australian Banks – Regulatory Liquidity

Section from the December 2009 BCBS Consultative Document re potential Liquid Assets:

When discussing the inclusion of **alternative assets** (in this case corporate bonds and covered bonds), the BCBS noted they would have to meet the following conditions:

- **Central bank eligibility*** for intraday liquidity needs or overnight liquidity shortages in relevant jurisdiction.
- **Not issued by a bank**, investment or insurance firm or Not issued by the bank itself.
- **Low credit risk:** assets have a credit assessment by a recognised external credit assessment institution (ECAI) of at least AA (assigned a 20% haircut), or A- (assigned a 40% haircut) or do not have a credit assessment by a recognised ECAI and are internally rated as having a probability of default (PD) corresponding to a credit assessment that is at least AA or A-, respectively.
- **Traded in large, deep and active markets characterised by a low level of concentration.** The bid-ask-yield spread has not exceeded 40 bsp (assigned a 20% haircut) or 50 bsp (only this for covered) (assigned a 40% haircut) during the last 10 years or during a relevant period of significant liquidity stress.
- **Proven record as a reliable source of liquidity** in the markets (repo and sale) even during stressed market conditions: ie, maximum decline of price or increase in haircut over a 30-day period during the last 10 years or during a relevant period of significant liquidity stress not exceeding 10%.

Australian Banks – Regulatory Liquidity

Characteristics of Liquid Assets

Assets are considered to be high quality liquid assets if they can be easily and immediately converted into cash at little or no loss of value.

The test is that their liquidity-generating capacity is assumed to remain intact even in periods of severe idiosyncratic and market stress - indeed such assets often benefit from flight to quality in these circumstances.

Unencumbered – assets should not be co-mingled with or used as hedges on trading positions, used as collateral or credit enhancements & should be managed with the clear and sole intent for use as a source of contingent funds.

General Characteristics:

- **Low credit risk** – high issuer credit standing and low level of subordination.
- **Low market risk** – low duration, low volatility, low inflation risk and convertible currency with low foreign exchange risk will all enhance asset liquidity.
- **Ease and certainty of valuation** – pricing formula agreed on, easy to calculate and no strong assumptions relied on. Inputs to the formula must be publicly available.
- **Low correlation with risky assets** – no wrong-way risk. e.g. financial firm bonds will be illiquid in times of stress in the banking sector.
- **Listed on a developed and recognised exchange**.

Australian Banks – Regulatory Liquidity

Characteristics of Liquid Assets continued

Market-related Characteristics:

- **Active and sizable market** – include a repo market. Good market breadth (price impact per unit) and depth (units traded at given price).
- **Presence of committed market makers.**
- **Low market concentration.**
- **Flight to quality. Liquidity will be good for preferred assets.**
- **Eligible at central banks – this is ideally the case but not a deal breaker.**

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Australian Banks – Regulatory Liquidity

Key Issues surrounding Liquid Assets

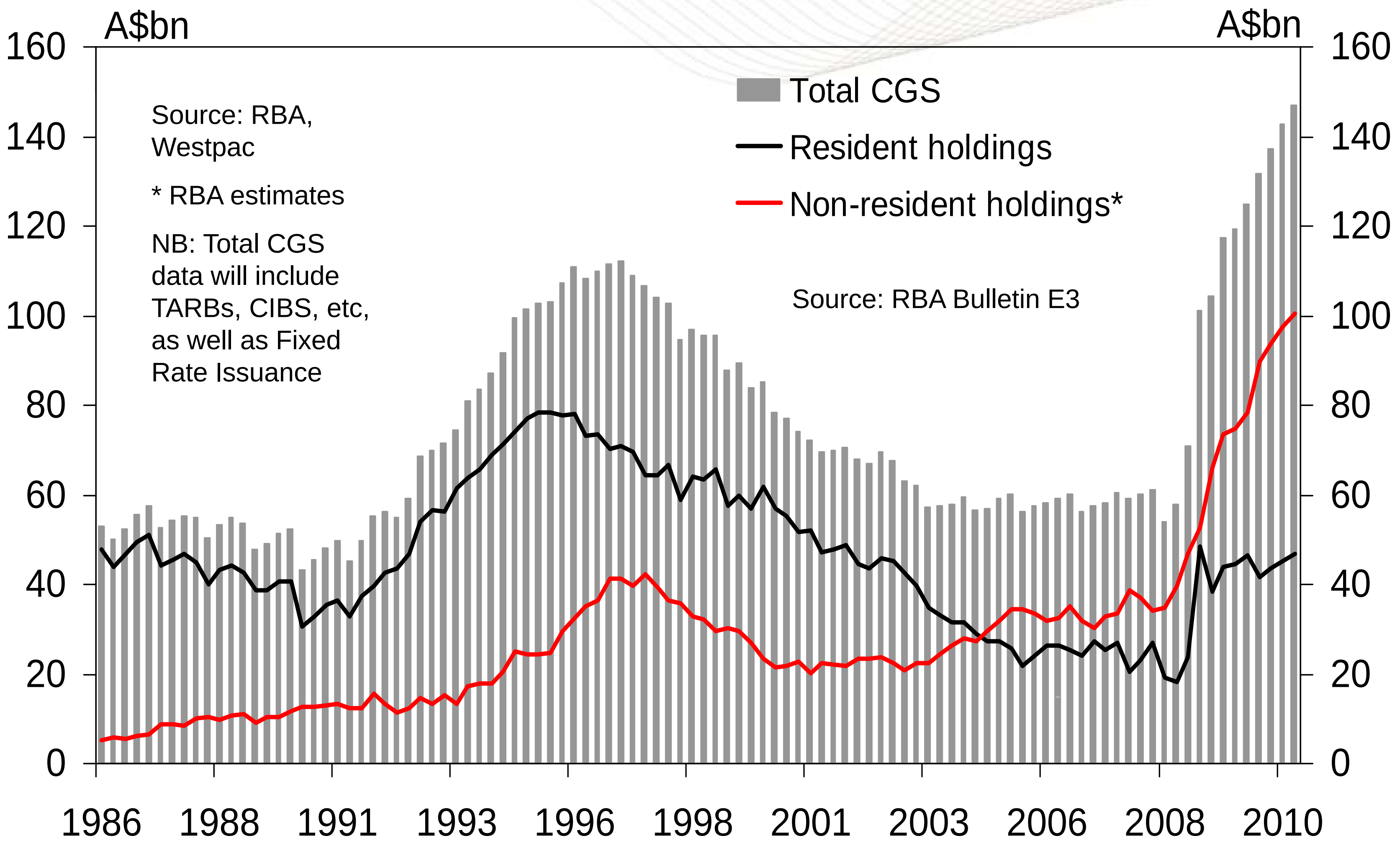
- How big is the hole? Estimates vary but we believe that across the banking system it is in the vicinity of $350-400bn.
- If banks buy all the debt, then it is not liquid! This is at the forefront of APRA's thinking. Regulators recognise this and don't want it.
    - Indeed, the fact that the Government began a $20bn issuance for CGS in 2008 shows that they have a demonstrated desire to maintain a liquid market.
- Final list of qualifying liquid assets is yet to be determined, but anything that APRA allows, BCBS will need to approve under their criteria. We cannot opt out. This is a very important point (refer next point).
- Comments on "Australia Clause":
    - Don't assume that BCBS want to allow ANY alternatives.
    - The debate has been intense and there have been varied views. For example, apart from what the new standards are, they need to standardise the rules that allow a jurisdiction to use any new standards under this clause.
    - APRA would want the new standards to be broad.
- Will get a new APS210 in 2nd half of 2011, but APRA has suggested that they hope to get clarity on qualifying Level 2 assets as early as 1st half 2011.

Australian Banks – Regulatory Liquidity

Market Implications of Liquid Asset Shortfall

- VIP: BCBS could "play hardball" and may not bend on the asset definition. That suggests a renewed focus on the "numerator" of the LCR calculation.
  - The implication is that the banks will need to focus on reducing the cumulative expected cash outflows minus cumulative expected cash inflows arising in the specified stress scenario in the time period under consideration (30 days).
- Keeping the asset definition tight has key implications. While the NSFR is not meant to be implemented until 2018, there are funding implications. That would mean that the alternatives are:
  - Issue longer and/or scramble for the long-dated Semis and Supras still available. The latter would presumably be more attractive to banks than the former given the cost of long-dated funds.
  - The implications would be precipitous for Semi spreads & Supras in our opinion.
  - There will possibly be a "cliff effect" for those assets that don't make the grade. Like what happens when bonds go from investment grade to non-investment grade?
  - Supranationals will have to fill the supply gap one would think. That is a big opportunity for ADB given the fundamentals of Asia versus Europe and US.

Offshore demand for A$ bonds continues to grow



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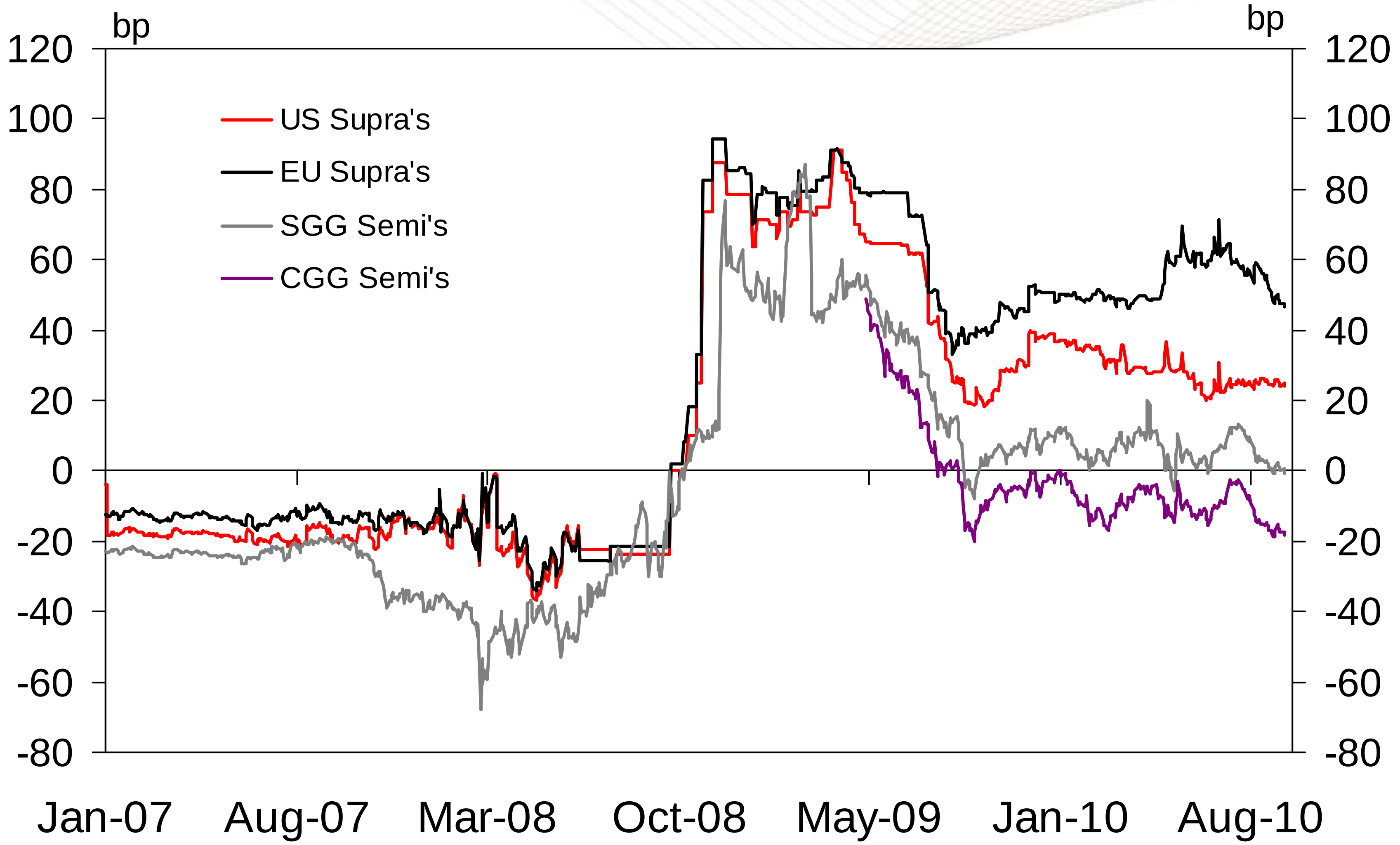
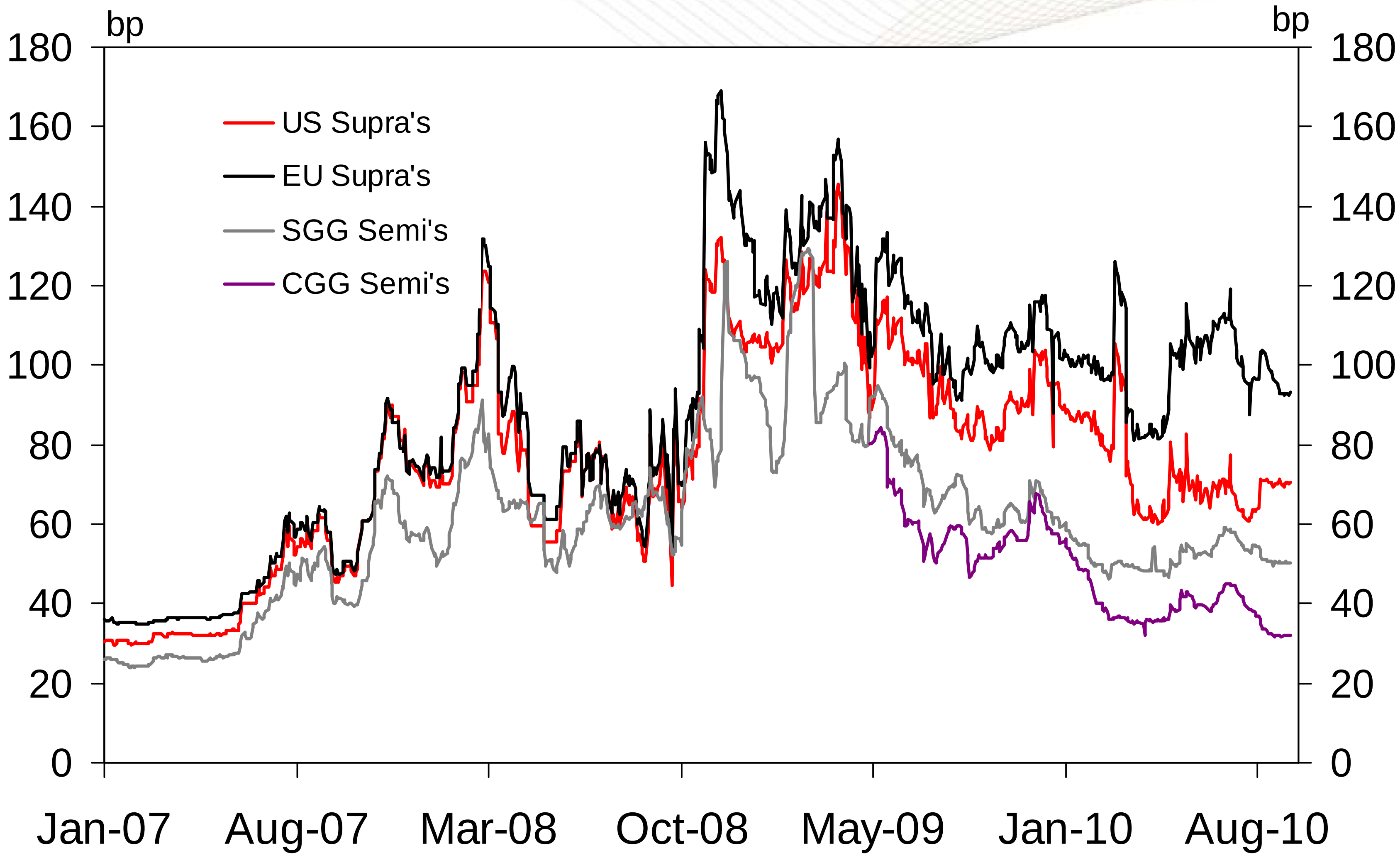
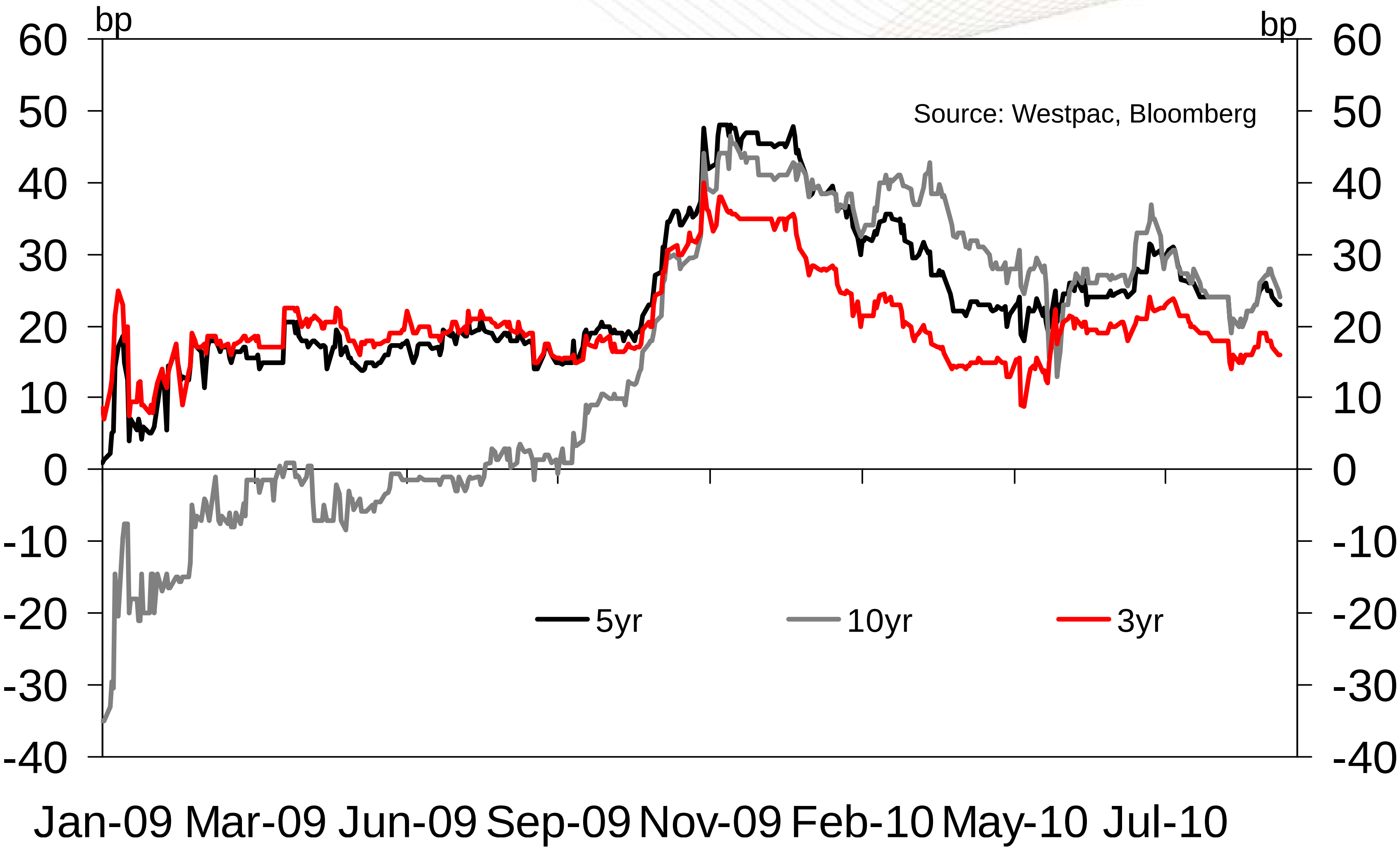
Semi & Supra ASW Spreads: 5yr+ Maturities



Semi & Supra Spread-Bond: 5yr+ maturities



Basis Swap – Regulation suggests upside is capped?



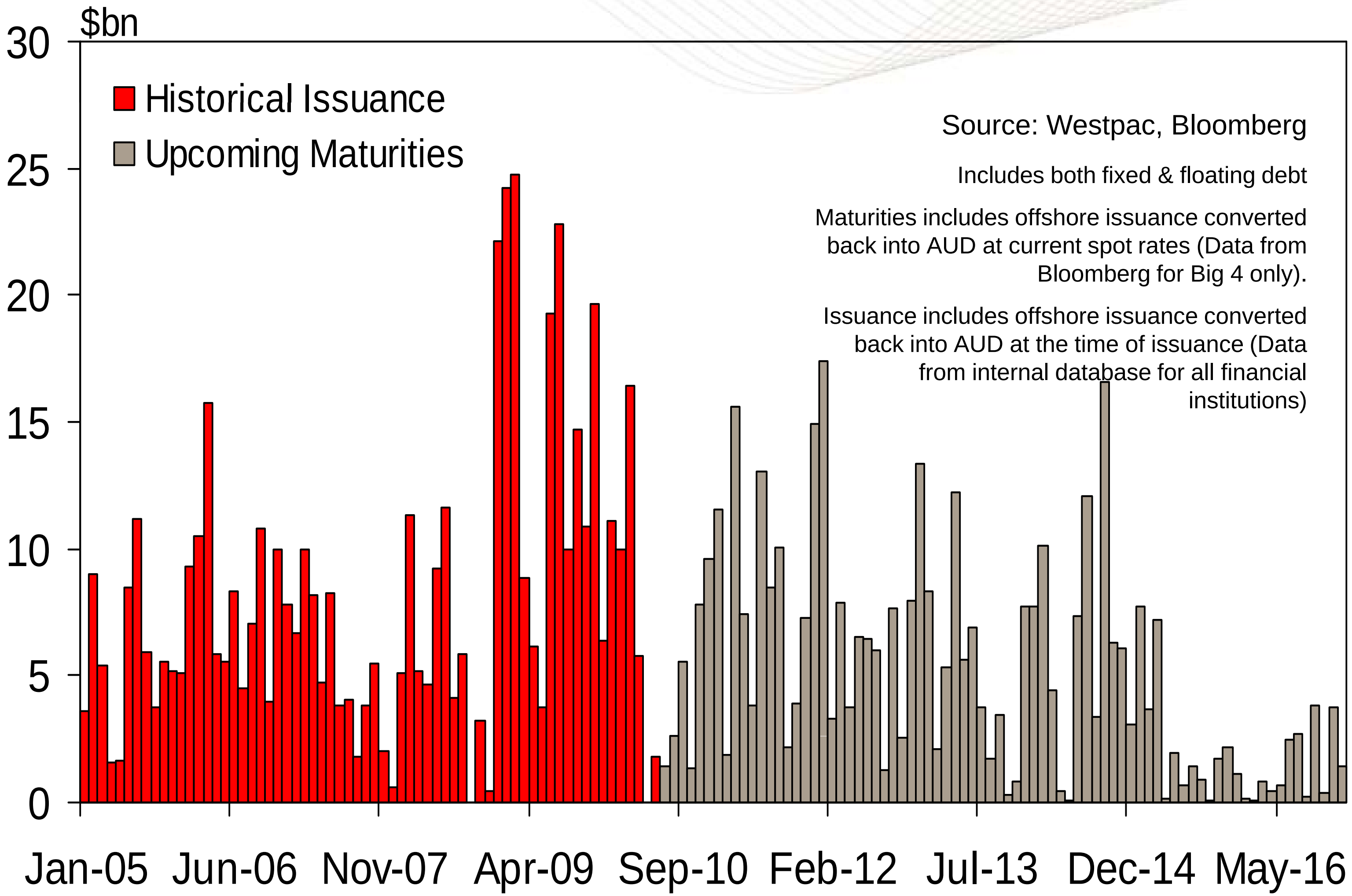
Australian Banks – Regulatory Liquidity

Net Stable Funding Ratio:

The BCBS watered down the NSFR from its original December report at the July update. Key changes including:

- Retail and SME deposits will have the stable funding factor lifted from 85% to 90% for stable deposits and from 70% to 80% for less stable deposits.
- Mortgage required stable funding ratio will drop from 100% to 65%. **This was clearly meaningful for Australian banks with significant mortgage holdings.**
- The NSFR will not be implemented as a minimum standard until January 2018.

AUD Financial Institutions – Issuance & Maturities



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