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Capital Management in Australian and Chinese Banking Systems:
Capital Management in Australian Banks

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Introduction

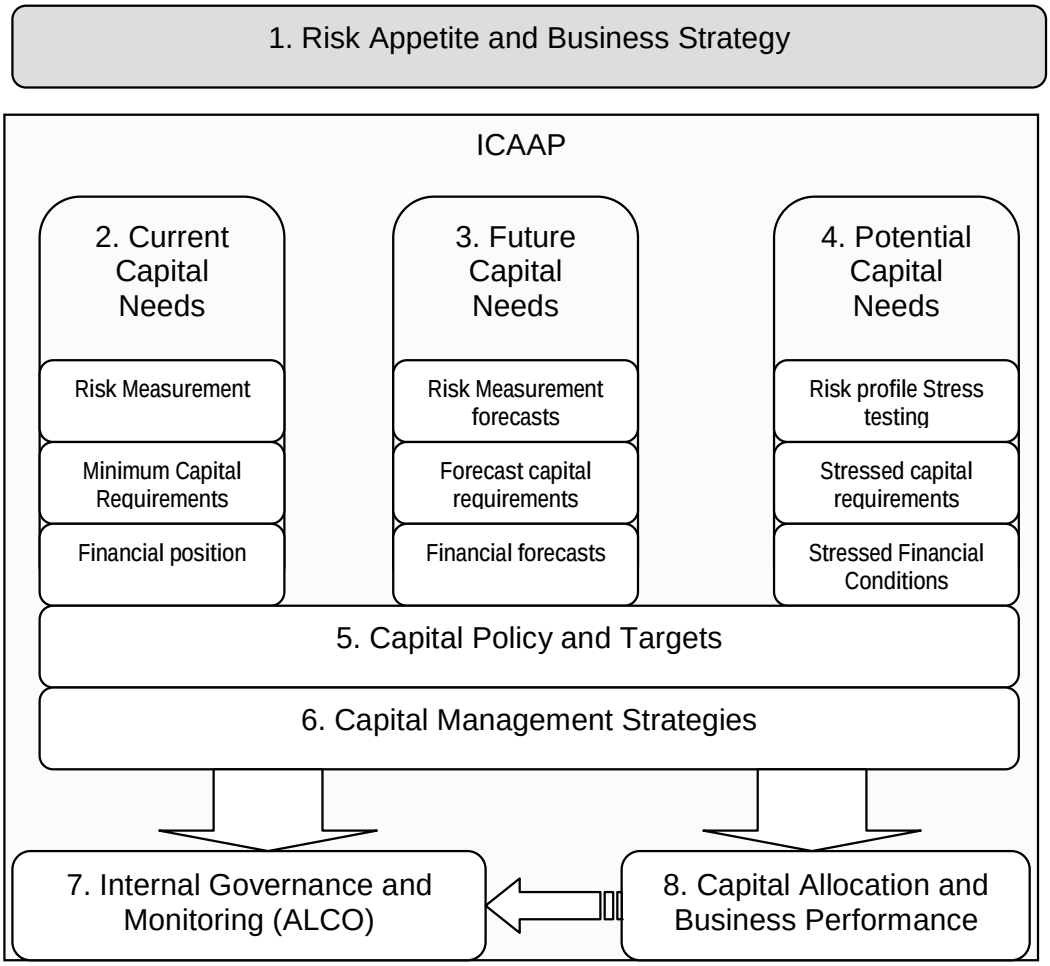
Australian banks typically maintain a strong capital position, primarily driven by a strong regulatory framework around capital adequacy. This regulation is based on the Basel II capital framework developed by the Bank for International Settlements (BIS) which was implemented for banks in Australia from January 2008. As part of the Basel II requirements, banks must outline their approach to capital management and make an internal assessment of the adequacy of their capital in a Board approved Internal Capital Adequacy Assessment Process (ICAAP) document. The ICAAP document, together with other assessments by the regulator, is a key input into the supervisory review process from which the regulator will determine the Prudential Capital Ratio (PCR) for an individual bank. This is the minimum capital ratio which must be held by the bank at all times. The regulator would expect banks to maintain a buffer above this minimum capital ratio.

This paper provides an overview of a typical approach to an ICAAP, and further detail on the physical capital management and capital allocation component processes. The ICAAP is intended to be an evolving process which is continuously being developed to reflect external and internal environment changes as well as continued process improvements in the organisation.

Overview

An overview of the scope and key components of an ICAAP are illustrated in Figure 1:

Figure 1



1. The Board sets the Group's risk appetite and overall business strategy. This defines the target capital soundness used as the base for capital management, and the direction and scope of the business, internal control environment and the risk profile.

2. Current capital needs are determined by:
   - A comprehensive identification, assessment and measurement of risks;
   - A translation of the risk measures into regulatory, rating agency and economic capital measures; and
   - The impact of the bank's financial position (i.e. earnings) on the capital position.

3. Future capital needs are determined as above using forecasts of the risk profile, capital requirements and financial position resulting from:
   - Ad-hoc business cases; and
   - The business and strategic planning process.

4. Potential capital needs and financial impacts on capital availability are assessed via the stress testing framework.

5. The resulting current, future and potential capital needs are assessed against minimum requirements (regulatory and rating agency) and internal capital buffers and targets as defined in the bank's capital policy.

6. Capital strategies are determined based on the above capital assessment and projected sources of capital, such as:
   - Profit growth;
   - Dividend strategy and reinvestment;
   - Business strategy; and
   - Capital initiatives.

7. A capital plan is developed and reviewed/approved by senior management. The timing of the plan approval is often coordinated with related financial reporting and planning processes. Material updates to the capital plan, for example from capital transactions, is also subject to senior management review and governance. A bank's Asset and Liability Committee (ALCO) is generally the key senior management forum for the review, approval and monitoring of the capital plan and position. The Board also reviews and monitors the capital position in accordance with the Board approved capital policy, the risk appetite and the financial planning process.

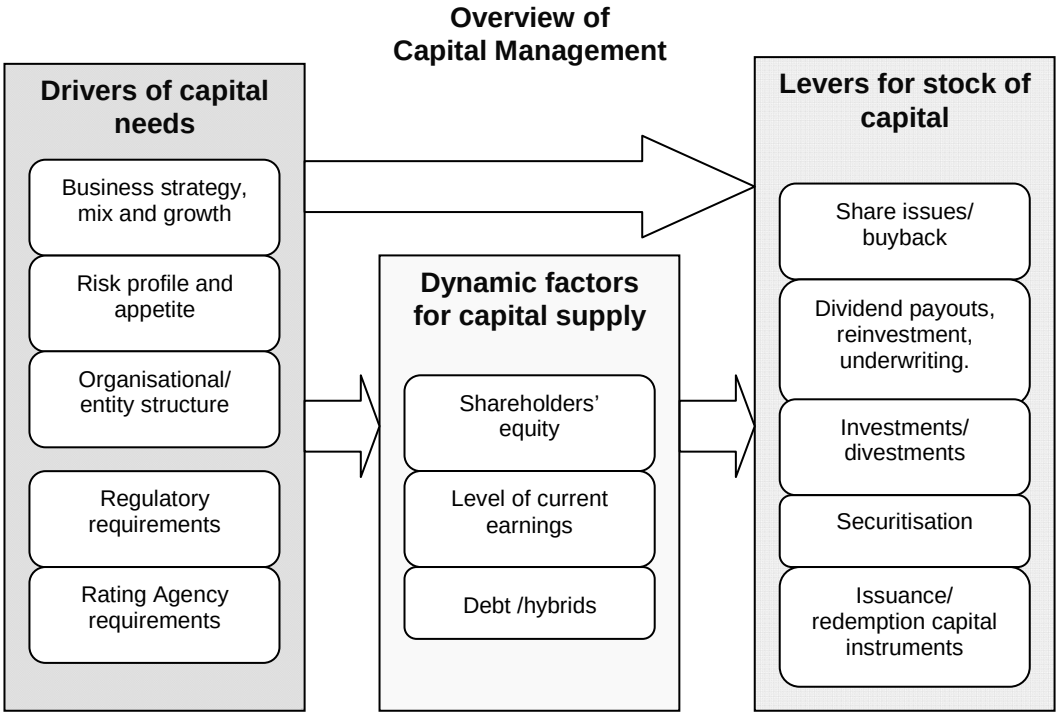
8. The Economic Capital framework is used to determine the appropriate level of capital to allocate to businesses in accordance with their risk profile. This enables transparency for management over every day risk/reward business decisions. Risk adjusted business performance measures are also used for monitoring of returns on capital within businesses and at an overall bank level.

Physical Capital Management

The capital of a banking group is managed in a transparent and consistent manner to ensure the most efficient outcome for shareholders whilst at the same time complying with all relevant regulations and conditions.

The various drivers of capital needs together with the availability of capital supplies and potential capital tools or sources form part of the capital management strategy formulation process. An overview of this process is illustrated in figure 2.

Figure 2



A banking group's internal current capital needs are driven by external minimum capital requirements and the Board's approved internal capital target ranges and buffers. The external minimum requirements are determined by:

- Banking minimum regulatory capital - based on Basel II approved internal models for "Risk Weighted Assets" (RWA) calculations, and a transitional "floor" based on RWA calculations under Basel I.
- Non-banking regulatory capital - based on the regulatory frameworks for Insurance and Funds Management. These are relevant where a banking group includes insurance and funds management subsidiaries.
- Rating agency capital requirements – these requirements are based on rating agency views of banking and subsidiary capital requirements for the banking group to maintain its target debt rating. The S&P rating agency risk adjusted capital requirements are currently being updated from a Basel I to a Basel II basis. The transitional status of the rating agency framework means that banks are in the process of considering the implications of the changes in their current and future capital management processes.
- Deductions to available capital – the regulatory and rating agency requirements noted above include requirements to fully deduct certain balance sheet items from capital available to meet regulatory requirements. For example, some intangible assets such as goodwill must be fully deducted from regulatory and rating agency available capital.

Internal capital target ranges and buffers are set and approved by the Board. They provide a desired buffer above minimum requirements which must be maintained in managing the

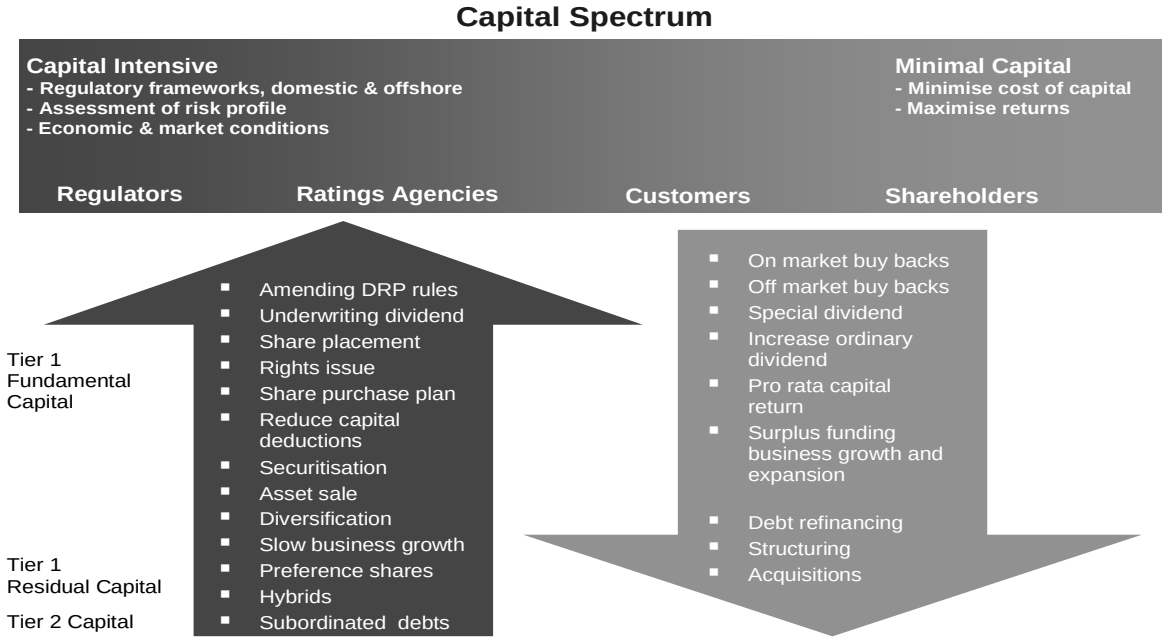
capital position. These targets and buffers include addressing the regulatory constraints imposed on the composition of the banking group's capital base, such as levels of Tier 1 and Tier 2 capital. They also address the regulatory requirements applying to different levels of consolidation across a banking group - the "Level 1" Australian domestic bank, the "level 2" domestic bank and offshore banking subsidiaries, and the "Level 3" consolidated Group businesses.

It should be noted that a number of Australian banks have recently been assessing the potential differences in Basel II implementation by the Australian Prudential Regulatory Authority (APRA) relative to UK, European and US banking regulators. The analysis suggests that significant elements of conservatism in the approach to Basel II from APRA has resulted in higher risk weighted assets measures relative to peer offshore banks. A particular challenge for Australian banks in this context is to be able to demonstrate and communicate to analysts and potential investors that the regulatory capital ratios of Australian banks are not directly comparable to the Basel II capital ratios of their offshore peers. A capital ratio of an Australian bank is very likely to represent a stronger capital position compared to an equivalent ratio of a Bank regulated, for example, by the UK Financial Services Authority. The differences will be dependent on the businesses and risk profile of the banks, and further work is being done across the industry in consultation with APRA to understand these potential differences.

Potential capital sources/tools

A banking group actively manages its capital to satisfy the requirements of all the key stakeholders whilst taking full advantage of the range of capital instruments and initiatives to optimise the financial efficiency of the capital base.

Figure 3



The potential capital tools or sources outlined in figure 3 can be utilised to increase or decrease the level of capital required to be maintained by the bank. For any specific investment, the bank will pursue the most appropriate capital initiatives based on the nature of the proposals and the current and expected future capital position.

Risk-Based Capital Allocation to Internal Business Areas

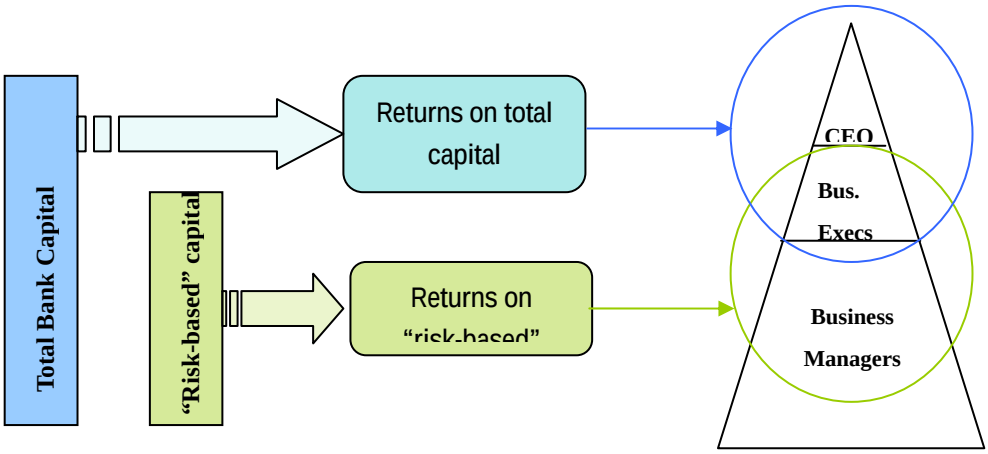
Whilst holdings of physical capital are primarily driven by Board targets for external requirements, the allocation of physical equity to business units within a bank is generally driven by internal measures of "risk" capital called "economic capital".

Economic Capital is an internal bottom-up estimate of the capital required to cover unexpected losses from the risk profile of the bank at a level of confidence that aligns with the Board's risk appetite (for example, the Board's target debt rating).

The first consideration in allocating capital via economic capital measures is what the total level of capital is that needs to be allocated. As the objective of capital allocation is to support appropriate risk/reward decision making by business managers within the bank, the total allocated equity is generally aligned to the physical equity required to support the risks being taken by the managers. This is known as total "risk-based" capital.

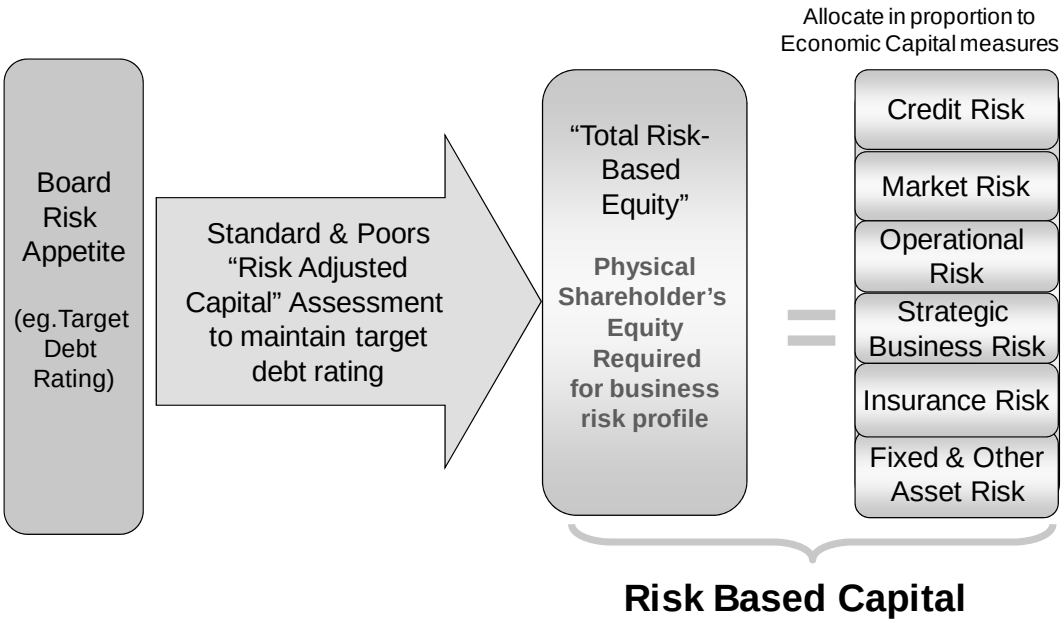
Capital held for purposes other than to cover the risk profile, such as to cover goodwill and capital buffers, are more strategic in nature and are generally not allocated to line management. The responsibility for making an appropriate return on this capital is allocated centrally to the more strategic, senior levels of the bank, such as the CEO and the executive management team (refer figure 4).

Figure 4



The total "risk-based" capital required to be allocated to line management may be different to the total economic capital calculated within the bank. For example, rating agency risk-based capital requirements that drive actual physical holdings of capital may be different to the total economic capital. In this case, many banks use the total "risk based" capital requirement from the rating agency view, but allocate this in proportion to the more portfolio risk sensitive internal economic capital measures.

Figure 5



The "risk capital" is allocated to line business managers in risk-based pricing and risk-return performance reporting. Economic capital is used for this allocation as it is the internal measure of risk capital requirements that is consistent with the bank's risk appetite and the broad profile of risks being taken (refer figure 5).

Economic Capital Measures

In contrast to regulatory and rating agency requirements, economic capital measures cover all material risk types across the bank. For example business/strategic, insurance and fixed asset risks may be included in addition to credit, market, and operational risk. Some banks may include other risks, such as reputational risk, as a distinct risk type in their economic capital or it may be covered within the scope of other risk types, such as operational and business risk.

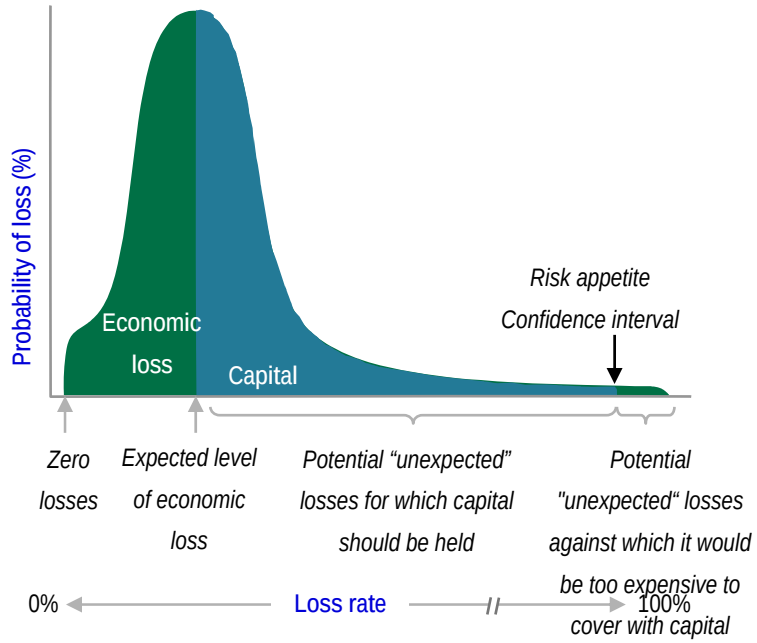
Economic capital for a risk type is calculated as the potential "economic" unexpected loss over the time to eliminate the risk assuming adverse circumstances, and at a level of confidence consistent with the Board risk appetite (refer figure 6).

Economic capital measures for an individual risk type include assumptions relating to correlation and volatility of potential losses within the risk. These assumptions are often

conservative and based on adverse circumstances.

The total level of economic capital is derived by aggregating individual risk type economic capital with recognition of the benefits of inter-risk diversification. Assumptions for including inter-risk diversification are conservative and represent correlation of risks in adverse circumstances.

Figure 6



Risk Adjusted Shareholder Value-Added (SVA) Measures

The purpose of risk-capital adjusted internal business performance measures is to incentivise the managers of business segments to act in a way which maximises the value-add for shareholders. In order to achieve this each business segment is required to make a certain minimum level of return (the "cost of capital") on their allocated capital.

The cost of capital is the minimum return that equity investors expect from the Group. The business activities which the Group undertakes will meet shareholders expectations if, and only if, they produce a long-term return on equity exceeding the cost of capital.

The Capital Asset Pricing Model (CAPM) is often used to estimate a bank's cost of capital. This is a widely accepted model that revolves around the relative "riskiness" of a particular investment against the market in general and the level of risk free returns.

Two main measures of risk-adjusted performance measures are commonly used:

- "economic" profit (EP) – this is profit (NPAT) less a capital charge (based on allocated capital charged at the required "cost of capital")

- Return on Allocated Equity (ROAE) – profit (NPAT)/ allocated equity

The inter-relationship between these two measures is as follows:

If ROAE > cost of capital

Then EP on allocated equity >0

And Shareholder Value Add is increased

The above measures are used in accordance with the following principles:

- The primary focus of the Group should be to maximise EP, as business which increases EP also increases shareholder value added (SVA).
- ROAE is used in setting and monitoring internal hurdle rates for transactions and in particular in assessing whether transactions make a return above the cost of capital.
- A business segment or transaction must produce a ROAE above the cost of capital to have a positive impact on EP.
- ROAE is not used for performance monitoring as marginal business which decreases the aggregate/portfolio ROAE of a business should still be written if it has a positive impact on EP.

Businesses are required to set higher minimum return targets (hurdle rates) above the Cost of Capital in order to achieve the Group's overall strategic goals. That is, if only the risk-based component of total capital is being allocated to business areas, the hurdle rates must be set to ensure that the Group makes an overall return on its total (risk-based plus "other" capital) capital. The hurdle rates will be dependent on the prevailing market and competitive environment in which the business operates. Individual business units can own and implement their individual hurdle rates, or these can be set more centrally.

The applications of the above SVA metrics in embedding value-based performance measurement and management across the Group are brought into the following activities:

- Product pricing and performance monitoring;
- Business performance monitoring and performance based senior management incentives; and
- Budget and business planning process.

A key success factor in implementing an economic capital based capital allocation framework is the embedding of SVA measures into the performance measurement frameworks/indicators of key business decision makers. These risk-based performance measures should be designed to align with the scope of the decision making responsibility of the manager to influence the risk profile.

Summary

The Group primarily manages physical capital in accordance with Board targets relating to external regulatory and rating agency requirements.

The objective of the capital allocation via the economic capital framework is to drive the business to achieve an appropriate risk-adjusted return on shareholder equity on a going concern basis. This is achieved by:

- Allocating the required shareholder equity to support the Board risk appetite (target debt rating) to businesses in accordance with their risk profile;
- Charging an appropriate cost of capital on the allocated capital;
- Embedding risk-adjusted return and profit measures into business pricing and performance frameworks; and
- Setting business hurdles that facilitate an appropriate return on total capital to shareholders.

Acknowledgement
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