

Equities

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Chinese Banks

Opening Pandora's Box of Wealth

■ Industry Overview

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- **The Rmb5.5trn Snowball** – Fears of shadow banking have subsided but the growth of banks' wealth management products (WMP) continues unabated. The impact of WMP growth is wide-ranging – they are disintermediating loans and deposits, and raising off-balance sheet credit and liquidity risks. WMPs are becoming sizeable; they doubled in 2011 to Rmb5.5trn, equivalent to 7% of system deposits, and could grow another 30-40% in 2012.
- **Opaque Pools of Assets** – Vast majority of WMPs in China are "asset pool" products that are effectively non-guaranteed short-term closed-end funds that invest in a wide range of assets, mostly in bonds and loan assets. Transparency and disclosures of asset pool products are very poor.
- **Fee Income Boost** – Strong growth in WMPs represents an upside risk for fee-income expectations. We estimate that total income related to wealth mgt reached 26% of fee income and grew 56% yoy in 1H11. Another 40-50% growth would mean wealth mgt alone could drive 10-15% points of fee income growth in 2012.
- **BOC's Strategic Drag** – ICBC is dominant with an est. 20% market share. ABC is a relative laggard. Among the smaller banks, CMB and MSB are aggressive, while CNCB seems less active. BOC's product mix is very different, focusing mainly on lower-margin but lower-risk structured deposits, and partly the cause of BOC's NIM and fee income underperformance in 2011. This drag potentially continues in 2012.
- **Not All About Upside** – Rapid growth of opaque WMPs clearly has risks: banks face implicit credit risks; asset pools carry liquidity risks given the duration mismatch; banks face greater intra-month deposit and LDR volatility; and regulations are still developing, posing uncertainties and risks.
- **We Reiterate Our View** that big banks will show better earnings growth and certainty in 2012 as loan growth is constrained by deposits, loan pricing power eases. Our Top Picks are ICBC, CCB and CRCB; MSB is our least preferred bank.

Figure 1. China Banks Valuation table

			Price	Target		PE		PB		Div Yield	
			3/15/12	Price		11E	12E	11E	12E	11E	12E
1288.CN	ABC	1	3.72	4.40	18%	7.8	6.2	1.6	1.3	4.5%	5.2%
1398.CN	ICBC	1	5.32	6.50	22%	8.0	6.6	1.6	1.4	4.5%	4.9%
0939.CN	CCB	1	6.25	7.50	20%	7.8	6.6	1.6	1.4	4.3%	4.8%
3988.CN	BOC	2	3.32	3.30	-1%	7.0	6.2	1.1	0.9	5.0%	5.4%
3968.CN	CMB	1	16.80	20.30	21%	8.7	9.0	1.9	1.6	2.5%	2.5%
3328.CN	BoCom	1	6.19	7.20	16%	6.2	5.4	1.1	0.9	2.6%	3.0%
0998.CN	CNCB	2	5.07	5.00	-1%	6.2	6.0	1.1	0.9	2.2%	2.5%
1988.CN	MSB	3	7.38	6.20	-16%	6.2	6.8	1.3	1.1	2.1%	2.1%
3618.CN	CRCB	1	4.27	5.50	29%	8.2	6.6	1.2	1.0	3.7%	4.7%

Source: CIRA

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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The Rmb5.5trn Snowball

Total bank WMPs at Rmb5.5trn and growing rapidly

Fears of shadow banking in China have lately subsided as there has been a significant slowdown in 2H11 in the growth of entrusted loans, trust loans and bank acceptance bills (all typically considered as elements of shadow banking), according to the PBOC. However, banks' wealth management products (WMP), which are largely off-balance sheet instruments, have continued to grow very strongly. We believe this opaque corner of the financial system deserves attention because it is now becoming quite sizeable – Rmb5.5trn by end-2011 (CBRC figure provided by CMB), equivalent to 7% of total banking system deposits – and is still growing rapidly. After doubling in size in 2011, industry experts believe WMPs outstanding could grow another 30-40% in 2012.

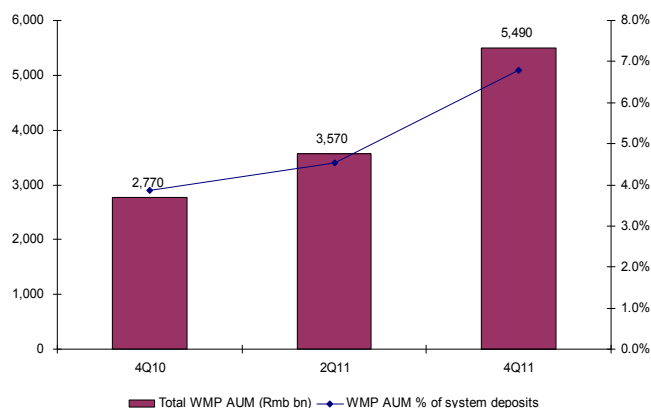
Implications of WMP growth are very wide-ranging

The development of bank WMPs has wide-ranging implications for China's banking system, from the disintermediation of deposits and loans to increased off-balance sheet risks and liquidity risks. We believe WMP growth was partly responsible for the slowdown of system deposit growth to 13.5% in 2011, below loan growth of 15.8%. We estimate that WMPs could have taken away 2-3% points of deposit growth in 2011.

Why banks compete in wealth management

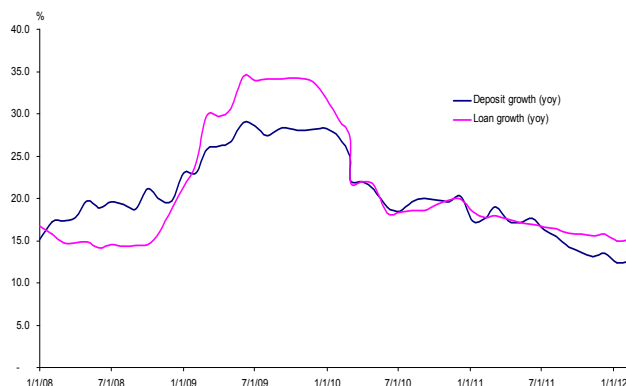
Banks are competing aggressively in the wealth management space because WMPs (1) are a means to attract and compete for deposits and customers, (2) help banks meet monthly LDR requirements, loan quotas and satisfy loan demand, and (3) contribute to non-interest income. Banks that do not participate in wealth management risk losing deposits and customers to competitors.

Figure 2. China WMP's AUM Growth



Source: PBOC, Citi Investment Research and Analysis

Figure 3. China Banking System loan and Deposit growth (yoy)



Source: PBOC, Citi Investment Research and Analysis

Opaque Pools of Assets

Asset pools are effectively short-term closed end funds

There are many types of wealth management products in China. We are primarily concerned with those sold to the mass market by banks. The vast majority of mass market bank WMPs (some 80-90%) are "asset pool" (资产池) products that are effectively short-term closed end funds that invest in a range of assets. Most asset pool WMPs are not principal guaranteed and are therefore off-balance sheet products.

Structured deposits are booked on-balance sheet

Structured deposits form the rest of the mass market bank WMPs. These are options tied to the bank's internal funding cost, mostly capital guaranteed and are therefore booked on banks' balance sheets.

There are also other wealth management products that banks sell to their high net-worth or private bank customers, such as trust products and private equity products. But banks are not the manufacturer of these products and only act as a distribution agent. We believe there is minimal recourse or liability for the banks from selling these products.

Asset Pools

We first touched on this subject in February in our mystery shopper exercise ([Chinese Banks - Shopping for Wealth](#)) where we visited ten different bank branches in Shenzhen and Beijing and looked at wealth management products. Most wealth management products sold in the branches are asset pool products. Below are the key features of asset pool WMPs:

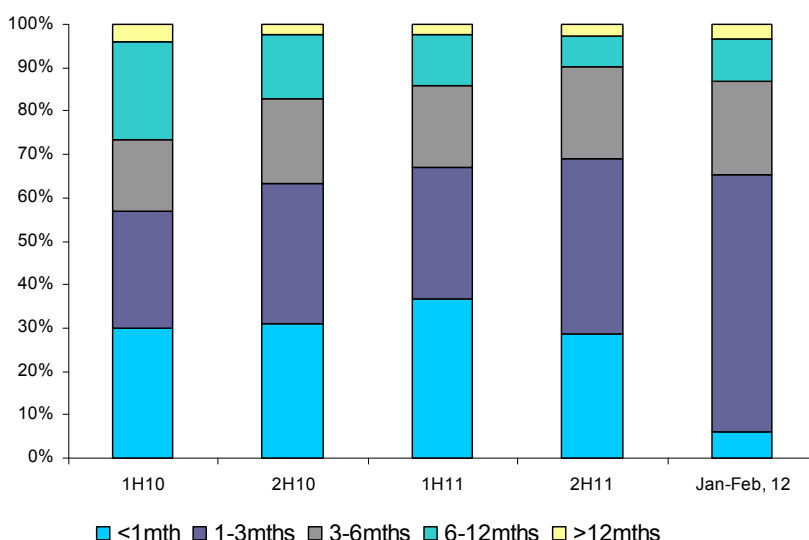
- **Short-term, mostly retail** – Mostly short term (1-3 months being most popular) and sold to retail customers. We believe the overall split between retail and institutional in terms of outstanding AUM is probably 70:30 (institutional includes corporates and financial institutions).
- **Non-guaranteed, typically 4% to 5.5% return** – The indicated maximum return for retail products typically range between 4% and 5.5% annualized, and varies based on duration and investment amount (based on our mystery shopping in mid-Feb). Most were non-principal guaranteed.
- **Banks earn c1% spread** – We believe asset pools roughly speaking could generate a total return of about 6%. This means banks can probably earn a spread of about 1% after paying out returns to investors. We believe profit margins from asset pools are about 1% plus or minus depending on how the pool is managed (e.g. investment mix and risk level, cost of funds, prevailing market and liquidity environment). This spread is booked as fee income by the banks.

Figure 4. Wealth Management Products Mystery Shopping Summary Table

			Products maturities (Days)		Investment Entry (Rmb mn)		Expected Max Return	
			Max	Min	Max	Min	Max	Min
ICBC	Futian Branch, Shenzhen	2/10/2012	136	41	1	0.05	5.80%	4.40%
	Fuxingmen Branch, Beijing	2/14/2012	367	41	1	0.05	5.40%	4.50%
BOC	Fujian mansion Branch, Shenzhen	2/10/2012	180	60	10	0.1	5.30%	4.40%
	Financial Street Branch, Beijing	2/14/2012	182	32	10	0.05	5.30%	4.20%
CCB	Fuhua Branch, Shenzhen	2/10/2012	362	31	0.2	0.2	6.00%	5.00%
ABC	Futian Branch, Shenzhen	2/10/2012	182	31	1	0.05	5.25%	4.10%
CMB	Huanggang Branch, Shenzhen	2/10/2012	360	30	0.05	0.05	5.00%	4.00%
CNCB	Futian Branch, Shenzhen	2/10/2012	316	7	0.05	0.05	6.40%	3.20%
CGB	Financial Street Branch, Beijing	2/14/2012	274	33	0.5	0.05	5.50%	4.00%
EVb	Financial Street Branch, Beijing	2/14/2012	104	70	0.5	0.05	5.20%	5.10%
Avg:							5.5%	4.3%

Source: Companies, Citi Investment Research and Analysis

Figure 5. Distribution of Maturities of System's WMPs (by number of products)



Source: Wind, Citi Investment Research and Analysis

What do asset pools invest in?

Low transparency; invest in a very wide range of assets

There is little transparency on how asset pools invest. There is no disclosure about the largest holdings by the asset pool/product; there are no financial reports regarding product / fund performance. The product description usually states that 10-90% of the assets are invested in bonds, interbank market, deposits and credit-related assets – which tells the investor very little. We believe this could include a very broad range of assets: government bonds, financial bonds, corporate bonds, bank acceptance bills, trust products, loans (e.g. project loans, bridging loans), interbank placements, bank deposits and even alternative assets such as art, tea, and wine.

Investment mix varies by bank

We find that the investment mix could vary from bank to bank. Banks that are more aggressive would tend to invest primarily in corporate bonds and loans. Less aggressive banks would focus more on government bonds, financial bonds and bank bills. Typically the higher the returns, the higher the credit risk and duration / liquidity risk as the fund will need to rely more on higher-yielding and longer-term assets like corporate bonds and loans to generate the returns.

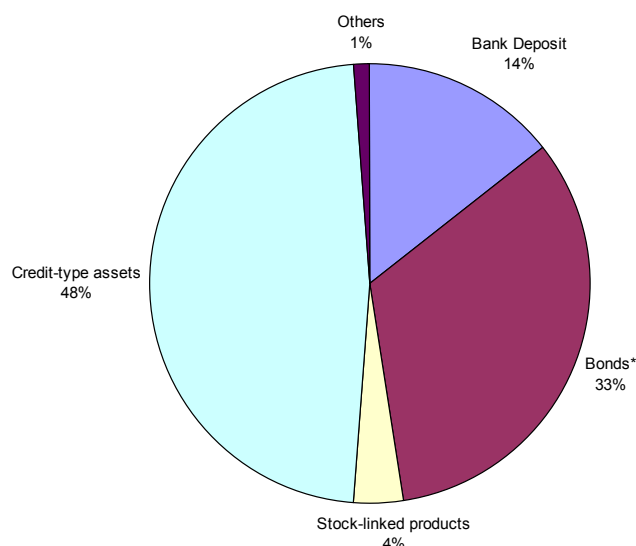
ICBC relies mostly on project/financing assets

ICBC, being the largest bank, also is the largest issuer of asset pool WMPs. Among ICBC's non-guaranteed WMPs, about 80% were invested in project/financing related assets (48% of total) and bonds (33% of total). Most of the remaining funds (14% of total) are deposits with ICBC. According to the company, bond investments consist mostly of government and financial bonds; the corporate bond market is not large enough given ICBC's wealth-management size.

CMB relies mostly on corporate bonds

CMB on the other hand relies primarily on corporate bonds to generate returns, and we understand that 70-80% of CMB's asset pool assets are in AA+ rated corporate bonds. Loan-related assets account for a smaller 10-20% of total investments. The next largest category is bank acceptance bills.

Figure 6. ICBC's Asset Allocation of WMP's Asset Pool in 2011



Source: Company, Citi Investment Research and Analysis Note: * bonds include government bonds, financial bonds and corporate bonds.

Higher returns than time deposits, and seemingly safe

Asset pools have become very popular among investors, given the attractive returns that exceed time deposit rates by some 100-200bps (one and three month time deposit rates are only 3.1% and 3.3% respectively) and, so far, all asset pool WMPs have delivered the indicated maximum return (needless to say, there has been no incident of capital loss). To the retail customer, asset pool WMPs look as safe as bank deposits but with higher returns.

Reputational risk, regulatory pressure means banks are implicitly exposed

Since asset pool WMPs are usually not principal guaranteed, banks are not legally responsible for any investment losses – and hence they are carried off-balance sheet and do not require capital or provisions. But we believe the banks are implicitly exposed to the investment and credit risk of asset pools because banks run reputational risks should their customers suffer a capital loss and we believe there is likely regulatory pressure on banks to prevent the pass through of investment losses to customers.

Structured Deposits

Structured deposits are much more straight forward than asset pools. They are options tied to the bank's internal funding cost, mostly capital guaranteed and are therefore booked on banks' balance sheet. The most popular structures are Libor range accruals, Eurodollar and gold price linked structures (known as "double no touch"):

Most popular are Libor range accruals and EUR and gold linked

- **Libor range accruals** are where the bank buys an option on a range, say 3M USD Libor between 0% and 8%, and if 3M USD Libor falls outside this range then the deposit will not accrue interest. The range is deliberately set very wide and therefore the likelihood that the maximum return is not paid out (i.e. non-accrual of interest) is extremely low. From this perspective, these structured deposits are somewhat artificial because there is very little optionality and option value embedded in the structure. Banks are effectively paying high deposit rates to attract deposits.

- **Eurodollar and gold double-no-touch** structures are similar – a fairly wide range is set for the EUR/USD exchange rate or gold price. If the price touches either end of the range during the period the investor will receive a lower return, and if the price does not touch the ends of the range the investor will receive a slightly higher return.

Lower returns than asset pools

Structured deposits usually offer slightly lower returns to investors than asset pool products because they are principal guaranteed and are lower risk for the bank (no mismatch, no credit risk). They are therefore also lower-margin than asset pool products and this is one reason why most banks favor asset pools. Structured deposits are also a more direct way to improve banks' LDR as they are booked on-balance sheet and are also included in the deposit base when calculating the LDR.

BOC – only bank to focus on structured deposits over asset pools

Among the domestic banks, BOC seems to be the only major bank that mainly focuses on structured deposits over asset pools. BOC has taken a more conservative wealth management strategy after having experienced the Lehman mini-bond debacle in HK which led to an aggregate loss of about HK\$4bn in 2009 and 2010 from the repurchase of HK\$5.9bn of mini-bonds from investors according to BOC's subsidiary BOCHK. We estimate that BOCHK subsequently recovered over HK\$3bn by disposing the collateral. This strategy has partly led to the underperformance of BOC's earnings versus its peers in 2011, through weaker NIM expansion (as funding costs for structured deposits are reflected in the P&L) and fee income growth.

Regulatory Developments

We believe the regulatory authorities are aware of the issues as wealth management products have developed. At a macro level, we believe they view the development in wealth management as an innovation in the financial sector, as a step towards interest rate liberalization and as a means to increase the direct financing channels for companies (e.g. catalyst for corporate bond market development). Another benefit is that individuals are now given the opportunity to invest their savings at a rate that is higher than time deposit rates and inflation (although CPI inflation in Feb has eased quite significantly to 3.2% yoy from 4.5% in Jan).

The PBOC is mainly concerned about the circumvention of bank lending quotas and guidelines through WMPs (i.e. the impact on total credit supplied to the economy), whilst the CBRC is more concerned about the transparency, proper selling and management of WMPs. Given the significant size of WMPs – Rmb5.5trn outstanding at end-2011 – we believe there is little room to turn back the clock and the way forward is to gradually strengthen regulations as required.

Below is a list of the key regulatory notices from the CBRC regarding banks' wealth management business.

- Late 2009 – CBRC issued guidelines regarding bank-trust cooperation business. Subsequently, banks were required by the end of 2011 to book back on-balance sheet assets from bank-trust businesses.
- July 2011 – Media articles report that the CBRC has asked banks to review six areas relating to banks wealth management business: (1) interbank deposits placed within own bank; (2) buying of other banks' WMPs; (3) local government vehicles; (4) trust beneficiary products; (5) entrusted loans WMPs; (6) bills WMPs. No official notice was issued by the CBRC regarding these areas.
- August 2011 – CBRC issued detailed rules regarding sales of wealth management products by banks.

- Sep 2011 – CSRC issued guidelines for risk management of banks' wealth management business which banned the sales of ultra-short term but high yielding WMPs, require banks to improve disclosure especially with regards to investment assets, start/end/settlement dates of the product.

We believe the next phase of regulations on wealth management will likely be focused on increasing the transparency of WMPs, such as greater and periodic disclosure of investments and assets.

Strong Growth Continues

Assuming regulations do not change significantly, we believe asset-pool WMPs will continue to grow strongly in 2012. Some industry experts expect the size of total WMP AUM to grow 30-40% this year, after doubling in 2011.

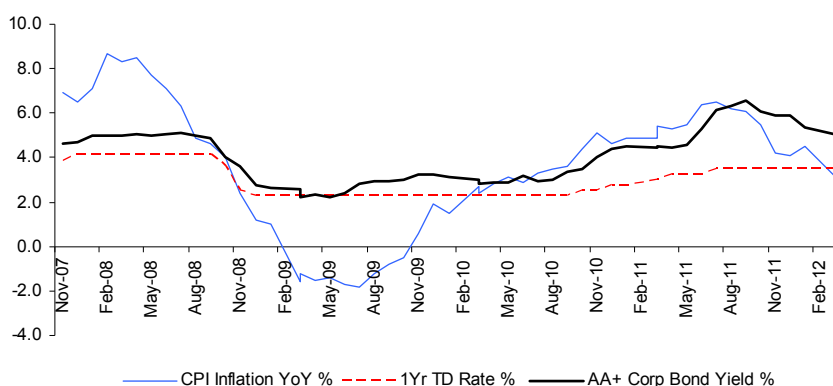
Asset pools effectively disintermediate the banking system

Asset pools are effectively a product that disintermediates the banking system by taking in funding at a rate above time deposits and investing in loans and bonds (especially corporate bonds). The ability to create asset-pool WMPs that can beat time deposit rates depends on the supply of relatively low-risk loans and corporate bonds. There are constraints from the somewhat modest size of the corporate bond market, which is currently Rmb4.6trn, but we do expect China's corporate bond market to expand rapidly going forward.

Widening gap between corporate bonds and deposit rates have opened up an opportunity for asset pools

Over the past four years, AA+ corporate bond yields have averaged 110bps higher than the one-year time deposit rate, but in 2011 this spread widened to 210bps giving extra room for asset-pool WMPs to exist. It is also interesting to note that over the past four years the one-year time deposit rate has on average been 60bps below CPI inflation.

Figure 7. Time deposit rate vs corporate bond yield



Source: CEIC, Wind

Recent decline in market interest rates points to pressure on WMP yields ...

Investment yields on WMPs are likely to decline going forward, given the recent decline in money market rates and bond yields following the RRR cuts and improvement in market liquidity. Due to the longer duration of the assets in the asset pool, we believe there is likely a time lag (or a repricing lag) in which the decline in market interest rates is reflected in lower WMP investment yields.

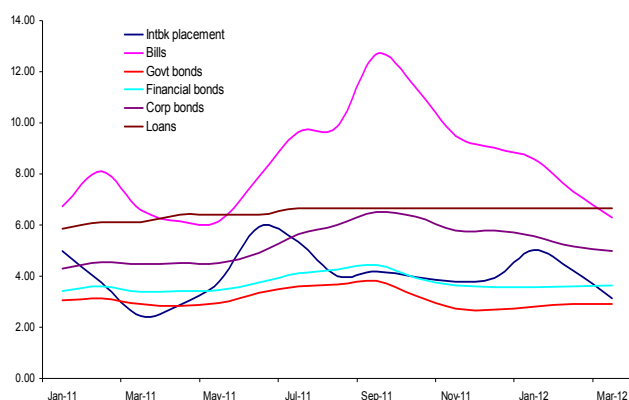
... but probably with a time lag

We have created a hypothetical asset pool based on a blended mix of interbank placements, bills, bonds and loans, as an indicator of the kind of yields that asset pools can generate. The yield for our hypothetical portfolio peaked in Sep 2011 and has since been declining. The actual WMP yields obtained from the Wind database actually peaked in Jan 2012, i.e. a four month lag vs our hypothetical portfolio. Since Jan 2012, WMP yields have declined about 20bps and we believe there is likely to be more pressure ahead.

Banks can adjust asset mix

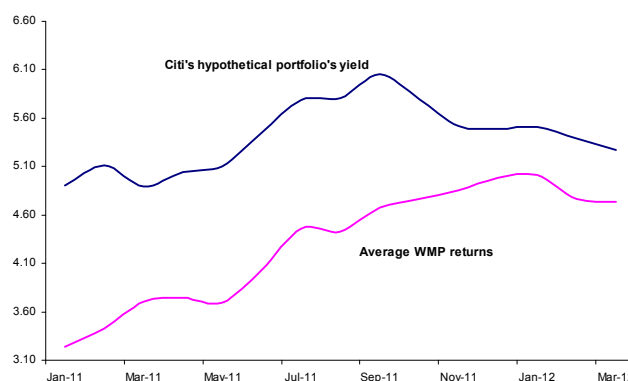
However, we believe banks can adjust the asset mix to support investment returns, e.g. raising the mix of loan related assets. Alternatively, this yield pressure could be offset by banks accepting a narrower margin/spread for themselves. Overall we think the volume outlook is likely to remain robust in the near term.

Figure 8. The yields trend of underlying assets of WMPs



Source: Wind, Citi Investment Research and Analysis Note: we used the 1-yr PBOC benchmark for loan rates

Figure 9. Citi hypothetical portfolio's yield vs WMP average returns



Source: Wind, Citi Investment Research and Analysis Note: we used average return of WMPs with 1-3mths maturities

Fee Income Boost

Spread income booked as fee income

Asset pools are not only a tool for banks to compete for deposits and manage the LDR, they also generate meaningful "fee" income. We believe that banks earn a spread of c1% between the overall returns from the asset pool and the payouts to investors. Banks book this spread income as fee income.

No consistency in the accounting of income from WMPs

But there is little consistency in treating this "fee" income from asset pools. We believe many banks book it under "commissions from trust and fiduciary services", while others book it under "agency commissions" and some may even book it under "consultancy and investment banking". Under agency commissions, this income would be lumped together with the distribution of third-party bancassurance and investment products (e.g. funds). Under consultancy and investment banking, the income would clearly be grouped together with financial advisory and investment banking activities.

Wealth mgt accounted for 26% of fee income ...

Aggregating together all the fee income that we believe can be related to wealth management activities, we estimate that wealth management on average accounted for 26% of fee income and grew 56% yoy in 1H11. These figures include income from other wealth management activities, such as selling bancassurance and mutual funds. But in 2011, we believe WMPs were the single biggest driver of wealth management related income and a significant driver behind the sector's c40% fee income growth.

... could drive 10-15% points of fee income growth in 2012

CMB, MSB and ICBC seem most exposed

If wealth management income grows another 40-50% in 2012, which is not at all impossible given the averaging effects of rapid WMP expansion, then wealth management alone could drive 10-15% points of fee income growth in 2012. If this materializes, then market expectations for fee income growth will likely need to ratchet upwards in our view.

Among individual banks, **CMB, MSB and ICBC** seem most exposed to wealth management with total wealth management-related income reaching 30-40% of fee income in 1H11.

Figure 10. China Banks – WMP fees contributed 27% of fee income growth in 1H11

Rmb mn	ICBC	CCB	ABC	BOC	CMB	MSB	CNCB	Avg
1H11 fee income related to wealth mgt	14,946	8,193	7,059	8,019	3,316	2,259	731	
Growth yoy (%)	41%	29%	30%	31%	47%	152%	40%	56%
Growth yoy (Rmb m)	4,344	1,856	1,635	1,881	1,058	1,364	210	
Contribution to yoy fee income growth	26%	13%	11%	28%	38%	40%	15%	27%
1H11 wealth mgt related fees as ...								
% of fee income	27.8%	17.2%	19.0%	22.9%	40.6%	28.5%	18.8%	25.7%
% of operating income	6.5%	4.2%	3.8%	4.8%	7.2%	5.8%	2.1%	4.9%
% of net earnings	10.2%	6.6%	7.9%	9.0%	13.4%	12.2%	3.6%	9.0%

Source: Citi Investment Research and Analysis Note: Disclosure is highly uneven, if not specified as wealth mgt fees, we typically include commission from trust and fiduciary services. In some cases, we include agency commissions due to lack of information, which would also include distribution of bancassurance and third party products. We have here excluded BoCom due to insufficient disclosure.

David and Goliath

Drilling down to the individual banks, we find that ICBC is dominant in the wealth management space while ABC is a laggard. Among the smaller sized banks, CMB and MSB are aggressive while CNCB seems less active.

ICBC is dominant, ABC lags, BOC different

- **ICBC** is the largest player in the industry with an estimated market share of 20% and appears to be the most aggressive among the big banks.
- **ABC** is relatively small in comparison to its vast branch network and retail customer base.
- **BOC** lags behind ICBC and CCB but its product mix is very different from the rest of the industry as it focuses primarily on structured deposits, therefore only 23% of its WMPs are booked off-balance sheet compared to 80-90% for other banks.

CMB and MSB aggressive, CNCB less active

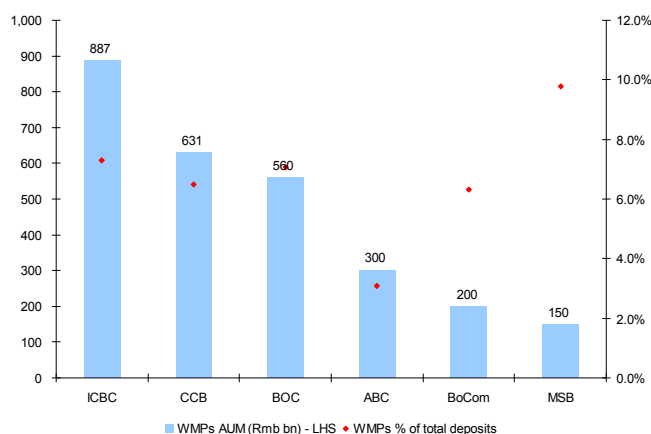
- Among the smaller banks, **CMB** and **MSB** appear to be aggressive in this space relative to their size with total WMP AUM equivalent to 11.5% and 9.8% of deposits respectively – the highest in the sector.
- We sense that **CNCB** is less active. The company has not provided us with any figures on WMPs outstanding, but it was the smallest issuer among the H-share banks (ex CRCB) in 2011 in terms of the number of products. Fee income contribution from wealth management also seems to be the lowest in the sector.

Figure 11. Chinese Banks – WMPs' AUM Summary

3Q11	ICBC	CCB	ABC	BOC	CMB	MSB	Avg
WMPs AUM (Rmb bn)	887	631	300	560	240	150	
% WMPs off-balance sheet	Majority	76%	Majority	23%	90%	Majority	
WMPs % of total assets	5.9%	5.4%	2.6%	4.9%	9.1%	7.1%	5.6%
WMPs % of total deposits	7.3%	6.5%	3.1%	7.1%	11.5%	9.8%	7.4%

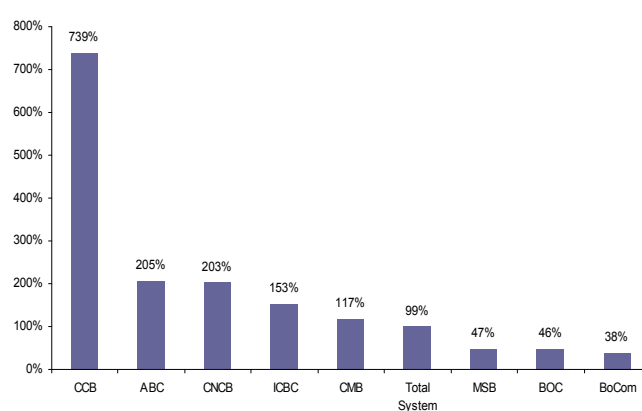
Source: Companies, Citi Investment Research and Analysis

Figure 12. Chinese Banks – WMP AUM and % of total deposits



Source: Citi Investment Research and Analysis

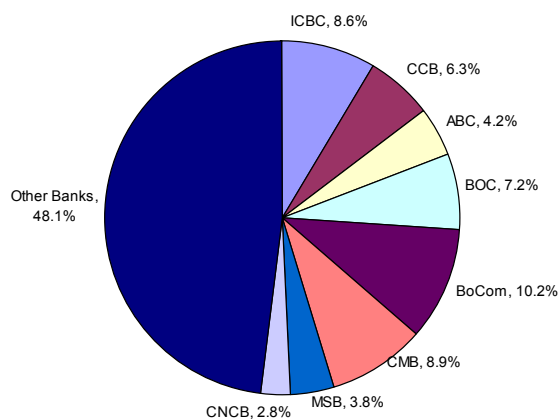
Figure 13. China Banks' WMP growth (yoy) by # of products (2011)



Source: Wind, Citi Investment Research and Analysis

Figure 14. Chinese Banks' Mkt Share by number of WMPs (2011)

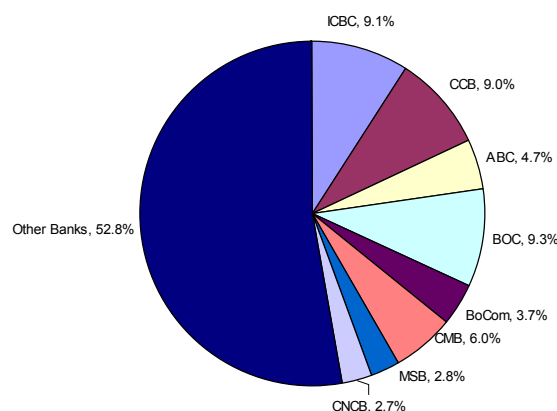
2011



Source: Wind, Citi Investment Research and Analysis

Figure 15. Chinese Banks' Mkt Share by number of WMPs (Jan-Feb, 12)

Jan-Feb, 2012



Source: Wind, Citi Investment Research and Analysis

BOC's Strategic Drag

Deliberate focus on structured deposits
as opposed to asset pools ...

BOC deserves a special mention because among the domestic banks, BOC seems to be the only major bank that mainly focuses on lower-margin but lower-risk structured deposits over asset pools. BOC has taken a more conservative wealth management strategy after having experienced the Lehman mini-bond debacle in HK, which led to an aggregate loss of about HK\$4bn in 2009 and 2010 from the repurchase of HK\$5.9bn of mini-bonds from investors according to BOC's

... has partly led to NIM and fee income underperformance ...

subsidiary BOCHK. We estimate that BOCHK subsequently recovered over HK\$3bn by disposing the collateral.

This strategy has partly led to the underperformance of BOC's earnings versus its peers in 2011. As a result BOC's NIM expansion has been weaker because structured deposits are booked on balance sheet and are dilutive to NIM given the high costs, and fee income growth has also been weaker because structured deposits bring in hardly any fees whereas asset pools could bring in a margin of about 1%.

... and the drag could continue in 2012

Our rough back-of-the-envelope calculation suggests that if BOC were to focus on asset pools instead of structured deposits (like the rest of the sector), then its 9M11 NIM would be 5bps higher and fee income growth yoy would be 5% points higher. This does not fully explain BOC's earnings underperformance, but a continued focus on structured deposits will probably lead to a continued drag on NIM and fees in 2012 for BOC.

Not All About Upside – The Risks

The rapid growth of opaque asset pool WMPs clearly has risks. While we do not expect any major problems from WMPs in the near term, we are conscious of the risks on the horizon:

Implicit credit risks exists

■ **Credit risks** – Banks are not legally responsible for investment losses in non-guaranteed WMPs but we believe there is implicit exposure to the investment and credit risk of asset pools due to the consideration of reputational risks and possible regulatory pressure should customers suffer a capital loss. Asset pools are probably diversified enough to withstand single or isolated credit events, hence credit risk is probably more tied to a systemic credit problem.

Asset pools are duration mismatched

■ **Liquidity risks** – there are two levels of liquidity risk to consider. First, liquidity risk, with asset pools given the duration mismatch between assets (can be medium term, 1-2 years) and liabilities (mostly 1-3 month money). Liquidity problems are unlikely while growth is rapid and the inflow of new funds is strong, but should these inflows stop or reverse there could be issues in unwinding the assets to repay investors. Triggers for such a reversal could include: (1) increased competition for funds should say stocks or property return to favor, (2) a credit problem that leads to capital loss for investors which could trigger greater investor caution and selectivity when investing their money, (3) inability to offer a high enough return to attract investors, which would lead to an unwind of asset pools.

Banks face greater deposit and LDR volatility

The second liquidity risk is at the bank level. Continued growth in off-balance sheet asset pools would drive greater deposit volatility intra-month (asset pool products are usually timed such that they mature at month end and the funds return on balance sheet as deposits for settlement) and average LDRs are likely to drift further away from the 75% month/quarter-end LDR requirement.

Regulations are still developing

■ **Regulatory risks** – Regulations for this young and rapidly growing wealth management business are still developing. This poses uncertainties and risks. The types of WMPs that are mostly sold today are the result of China's deposit rate regulations – they are effectively a way for banks to compete for deposits through the back-door. The regulatory authorities view this as a step towards interest rate liberalization, but this liberalization is happening at the wrong end of the spectrum in our view. Rate liberalization should start at the longer and larger end of deposits and gradually move into the short-end and small deposits. But

today's WMPs are mostly focused on the short-end and smaller-sized retail deposits.

Appendix

Figure 16. Total Social Financing Flow Data

Rmb bn	2002	2003	2004	2005	2006	2007	2008	2009	2010	1Q11	2Q11	3Q11	4Q11	2011
Percentage of total financing														
Total social financing	100	100	100	100	100	100	100	100	100	100	100	100	100	100
RMB Loans	92	81	78.8	82.1	79.3	61.3	71.5	68.1	55.6	53.5	54.1	74.2	58.9	58.2
Foreign Loans	3.7	6.7	4.8	3.7	2.5	4.9	0.9	6.6	2.9	3.5	5.3	7.1	3.0	4.5
Entrusted Loans	0.9	1.8	11.1	3.4	4.7	5.7	6.2	4.8	7.9	7.6	10.7	17.9	7.7	10.1
Trust Loans	-	-	-	-	2.1	2.9	4.6	3.1	2.7	0.2	2.3	-0.2	3.7	1.6
Bank Acceptance Bills	-3.5	5.9	-1	0.1	3.8	11.3	1.6	3.3	16.3	18.2	15.9	-17.2	1.7	8.0
Corporate Bonds	1.6	1.6	1.8	7	2.1	3.9	8.1	9.2	8.4	10.9	5.7	9.0	17.4	10.7
Non-Financial Corporate Equity	3	1.6	2.3	1.2	3.4	8.1	4.9	3.2	4.1	3.7	3.1	4.2	2.8	3.4
Others	2.3	1.4	2.2	2.5	2.1	1.9	2.2	1.7	2.1	2.4	2.9	4.9	4.8	3.5
Implied levels in billions of RMB derived from loan figures and above percentages														
Total social financing	1,957	3,420	2,868	2,862	4,010	5,922	6,869	14,082	14,299	4,190	3,570	2,040	3,030	12,830
RMB Loans	1,800	2,770	2,260	2,350	3,180	3,630	4,911	9,590	7,950	2,240	1,930	1,514	1,786	7,470
Foreign Loans	72	229	138	106	100	290	62	929	415	147	189	144	91	571
Entrusted Loans	18	62	318	97	188	338	426	676	1,130	320	383	365	232	1,300
Trust Loans	-	-	-	-	84	172	316	437	386	9	82	-3	113	201
Undiscounted Bank Acceptance Bills	-68	202	-29	3	152	669	110	465	2,331	761	569	-350	50	1,030
Corporate Bonds	31	55	52	200	84	231	556	1,296	1,201	455	204	184	527	1,370
Non-Financial Corporate Equity	59	55	66	34	136	480	337	451	586	156	112	85	85	438
Others	45	48	63	72	84	113	151	239	300	101	102	101	146	450

Source: PBOC, Citi Investment Research and Analysis

Figure 17. China's Trust Assets and Growth Table

	QoQ growth%														
Rmb bn	1Q10	2Q10	3Q10	4Q10	1Q11	2Q11	3Q11	4Q11	2Q10	3Q10	4Q10	1Q11	2Q11	3Q11	4Q11
Credit Type (融资类)	1,462	1,859	1,826	1,794	1,877	2,030	2,155	2,475	27%	-2%	-2%	5%	8%	6%	15%
- Property	235	315	378	432	487	605	680	688	34%	20%	14%	13%	24%	12%	1%
- Infrastructure	888	1,064	1,001	995	994	1,013	977	1,016	20%	-6%	-1%	0%	2%	-4%	4%
- Other Corp.	339	480	447	367	397	412	498	771	42%	-7%	-18%	8%	4%	21%	55%
Investment Type (投资类)	422	505	603	726	906	1,244	1,383	1,723	20%	19%	20%	25%	37%	11%	25%
- Stocks	88	79	116	148	175	191	181	172	-10%	46%	28%	18%	9%	-6%	-5%
- Funds	9	11	10	13	18	16	19	23	21%	-2%	29%	32%	-11%	24%	16%
- Bonds	39	73	110	113	115	151	155	226	86%	50%	3%	2%	31%	3%	46%
- Corps	286	342	368	451	597	886	1,027	1,302	19%	7%	23%	32%	48%	16%	27%
Others	491	551	528	520	485	469	560	614	12%	-4%	-1%	-7%	-3%	19%	9%
Total Trust Assets	2,374	2,915	2,957	3,040	3,268	3,742	4,098	4,811	23%	1%	3%	8%	15%	10%	17%

Source: Trust Association, Citi Investment Research and Analysis

Figure 18. China Banks – Valuation Table

3/15/12	ABC	ICBC	CCB	BoC	CMB	BoCom	CNCB	MSB	CRCB	Average
Stock code	1288.CN	1398.CN	0939.CN	3988.CN	3968.CN	3328.CN	0998.CN	1988.CN	3618.CN	
Market cap (US\$ bn)	155.68	239.29	201.34	119.41	46.71	49.36	30.56	25.40	5.12	
Recommendation	1	1	1	2	1	1	2	3	1	
Price (HK\$)	3.72	5.32	6.25	3.32	16.80	6.19	5.07	7.38	4.27	
Target (HK\$)	4.40	6.50	7.50	3.30	20.30	7.20	5.00	6.20	5.50	
Expected Return	18%	22%	20%	-1%	21%	16%	-1%	-16%	29%	
EPS (Rmb)										
10	0.33	0.48	0.56	0.40	1.23	0.74	0.55	0.66	0.47	
11F	0.40	0.57	0.67	0.40	1.63	0.85	0.69	1.00	0.44	
12F	0.50	0.66	0.78	0.44	1.54	0.94	0.69	0.89	0.53	
EPS (Rmb) growth (%)										
10	32.3	25.2	22.5	26.6	29.1	20.7	50.2	24.9	47.9	27.14
11F	21.5	17.3	20.6	(0.9)	32.5	14.3	24.7	52.5	(5.0)	18.24
12F	23.4	16.2	15.1	10.8	(5.8)	10.6	0.3	(11.0)	19.6	13.75
EPS (HK\$)										
10	0.39	0.57	0.66	0.48	1.46	0.88	0.65	0.78	0.55	0.62
11F	0.49	0.69	0.82	0.49	1.99	1.03	0.84	1.22	0.54	0.77
12F	0.60	0.80	0.95	0.54	1.87	1.14	0.84	1.09	0.64	0.85
EPS (HK\$) growth (%)										
10	36.4	29.0	26.3	30.5	33.1	24.4	54.8	28.8	52.5	31.09
11F	25.3	20.9	24.3	2.2	36.6	17.9	28.6	57.2	(2.1)	21.91
12F	23.4	16.2	15.1	10.8	(5.8)	10.6	0.3	(11.0)	19.6	13.75
PER (x)										
10	9.5	9.3	9.4	7.0	11.5	7.1	7.8	9.5	7.8	9.05
11F	7.6	7.7	7.6	6.8	8.4	6.0	6.1	6.0	7.9	7.42
12F	6.2	6.6	6.6	6.2	9.0	5.4	6.0	6.8	6.6	6.55
Price/PPOP (x)										
10	5.5	6.4	6.2	4.7	7.7	4.4	5.0	5.9	6.2	5.89
11F	4.4	5.1	5.0	4.2	5.5	3.7	3.8	3.7	6.0	4.71
12F	3.8	4.4	4.3	3.7	5.8	3.3	3.8	3.9	4.9	4.17
BVPS (HK\$)										
10	1.97	2.77	3.30	2.73	7.34	4.68	3.64	4.61	2.94	3.20
11F	2.46	3.33	3.96	3.14	9.21	5.70	4.62	5.85	3.60	3.89
12F	2.89	3.90	4.63	3.53	10.68	6.65	5.34	6.93	4.10	4.52
Price/Book (x)										
10	1.9	1.9	1.9	1.2	2.3	1.3	1.4	1.6	1.5	1.78
11F	1.5	1.6	1.6	1.1	1.8	1.1	1.1	1.3	1.2	1.47
12F	1.3	1.4	1.4	0.9	1.6	0.9	0.9	1.1	1.0	1.26
DPS (HK\$)										
10	0.18	0.22	0.25	0.17	0.34	0.14	-	0.12	0.05	0.20
11F	0.17	0.25	0.28	0.17	0.44	0.17	0.11	0.16	0.16	0.23
12F	0.19	0.26	0.30	0.18	0.41	0.19	0.13	0.16	0.20	0.24
Dividend yield (%)										
10	4.9	4.1	4.0	5.2	2.0	2.3	-	1.6	1.2	3.94
11F	4.6	4.6	4.5	5.2	2.6	2.7	2.3	2.2	3.8	4.31
12F	5.2	4.9	4.8	5.4	2.5	3.0	2.5	2.1	4.7	3.67

Source: Companies, Citi Investment Research and Analysis estimates

Figure 19. Chinese Banks – Performance Ratios

2/20/12	ABC	ICBC	CCB	BoC	CMB	BoCom	CNCB	MSB	CRCB	Avg
ROA (stated)										
10	0.99	1.31	1.32	1.09	1.15	1.08	1.12	1.08	1.26	1.20
11F	1.18	1.40	1.47	1.04	1.39	1.14	1.35	1.35	1.34	1.32
12F	1.28	1.44	1.51	1.03	1.41	1.12	1.32	1.24	1.36	1.35
ROE (stated)										
10	21.44	22.15	21.54	18.02	22.73	20.20	19.19	18.30	19.26	21.15
11F	21.81	22.66	22.36	16.98	23.72	19.65	19.82	23.08	16.78	21.58
12F	22.60	22.52	22.05	16.79	20.57	18.53	16.87	19.59	17.29	21.15
Net interest margin										
10	2.55	2.44	2.49	2.08	2.65	2.46	2.51	2.85	3.11	2.47
11F	2.78	2.56	2.66	2.10	3.22	2.51	2.94	3.26	3.27	2.65
12F	2.77	2.62	2.70	2.10	3.23	2.56	2.94	3.21	3.30	2.67
Cost/income										
10	43.8	36.6	37.3	44.3	45.9	40.3	40.2	47.9	50.5	40.56
11F	40.5	35.2	35.8	42.7	42.8	40.4	38.2	46.1	47.9	38.72
12F	40.3	35.3	36.0	42.7	43.0	40.6	38.7	46.2	46.7	38.80
Non-interest inc/total operating income										
10	17.1	20.2	22.8	29.9	20.4	18.4	14.6	16.1	3.1	21.20
11F	20.1	22.9	24.7	30.7	19.8	19.3	14.7	21.1	4.5	23.21
12F	21.8	23.7	25.8	31.2	21.3	19.8	15.1	22.0	5.4	24.19
Loans/deposits										
10	55.8	60.9	62.5	75.6	75.5	78.0	73.0	74.6	59.4	65.31
11F	56.7	62.9	64.4	78.6	76.5	80.3	74.1	75.3	59.6	67.10
12F	58.0	64.9	66.2	79.5	76.2	80.6	74.0	76.7	58.2	68.48
Loan growth										
10	19.8	18.5	17.6	15.3	20.7	21.6	18.6	19.8	20.0	18.56
11F	13.5	15.1	14.9	12.1	12.5	14.8	11.6	11.0	17.7	14.08
12F	14.9	14.8	14.8	12.9	11.1	11.9	11.4	13.1	19.8	14.13
Equity/assets										
10	5.2	6.1	6.5	6.5	5.6	5.7	6.0	5.8	7.9	6.07
11F	5.6	6.2	6.7	6.4	6.1	5.9	7.7	6.1	8.2	6.33
12F	5.8	6.6	7.0	6.4	7.5	6.2	8.0	6.7	7.7	6.65
Tier 1 CAR										
10	9.7	10.3	10.4	10.1	8.0	9.4	8.5	8.1	14.8	9.98
11F	10.0	10.0	10.4	10.1	8.5	9.5	10.7	8.1	14.4	10.04
12F	10.3	10.6	10.7	10.2	10.9	10.0	11.1	9.0	14.3	10.55
Total CAR										
10	11.6	12.6	12.7	12.6	11.5	12.4	11.3	10.4	16.3	12.35
11F	11.6	12.8	12.5	12.7	11.6	12.3	12.7	9.8	15.6	12.42
12F	11.8	13.3	12.7	12.6	13.8	12.5	12.9	11.7	15.3	12.84
Bad Debt Provisions/Average Loans										
09	1.11	0.45	0.59	0.37	0.29	0.71	0.29	0.69	0.14	0.60
10	0.95	0.45	0.56	0.25	0.42	0.60	0.45	0.57	-0.04	0.55
11F	1.10	0.61	0.62	0.50	0.60	0.60	0.55	0.75	0.16	0.69
12F	0.90	0.61	0.61	0.55	0.60	0.70	0.60	1.00	0.27	0.67
Impaired loans ratio										
10	2.03	1.08	1.14	1.13	0.68	1.12	0.67	0.73	2.53	1.24
11F	1.64	0.93	1.03	1.04	0.62	1.00	0.64	0.74	1.92	1.08
12F	1.68	1.10	1.16	1.19	0.76	1.15	0.75	0.97	1.62	1.21
Provision coverage										
10	168.0	228.6	221.1	192.3	302.4	185.8	213.5	256.9	162.7	214.24
11F	239.4	277.4	254.9	220.2	376.1	223.6	261.9	305.5	194.8	261.59
12F	248.9	247.2	233.7	208.6	346.6	226.6	252.3	291.8	215.0	246.2

Source: Companies, Citi Investment Research and Analysis estimates

Appendix A-1

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