

Jim Stehli, Former Global Head of CDOs at UBS

MEMORANDUM FOR THE RECORD (MFR)

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INTERVIEWER: Kim Leslie Shafer (KLS), who also prepared MFR; no other FCIC participants

LOCATION: Offices of Mr. Stehli's attorneys at Lankler Siffert & Wohl

NON-FCIC PARTICIPANTS: Helen Gredd and Andrew Lee, Lankler Siffert & Wohl; Jeff Chapman, Sullivan & Cromwell, representing UBS

CONFIDENTIALITY: Non-public interview covered by UBS Confidentiality Agreement

SUMMARY OF INTERVIEW:

Stehli's professional background prior to UBS: 1988 graduate of SoNY-Binghamton. Worked at Morgan Guaranty at automating global risk; moved into mortgage trading at JPM Securities in early 1990; moved to Tokyo with JPM (spoke Japanese). Accepted into MBA programs but never entered. Went back to Japan working for Kidder Peabody (1992-4), which then was acquired by Paine Webber, which was then purchased by UBS in 2000. 2001 became head of ABS CDO team. Early 2005 CDOs were consolidated rather than having separate groups for CLOs and ABS CDOs. Became co-head (with Jeff Herlyn and Mike Rosenberg, who ran CLOs but they left a few months later to start a CLO equity fund, which went public). 2Q05 became Global Head of CDOs. Ultimately group had 50 people. Left UBS in October 2007. Did not work in 2008. Now with Serona with a 5 person group. [1:55]

Started working on CDOs in March 1998 at Paine Webber. Did *market-value* CBOs with short (1.5 year) duration cash enhanced AAA and high-grade assets; used CP to fund part of the liabilities. Managers were TCW, Alliance-Bernstein, Declaration (a part of John Hancock) and Babson. 3 people in group. RMBS CDO team. First of these CDOs was likely done in 1997. (Bear Stearns did some of these market value structures with Clinton as the collateral manager, variable funding structure with expandable/contractable leverage.)

DASH I was (one of) first ABS *cashflow* CDO done late 1999. Asset Allocation was the manager, the guys who now are at Vanderbilt. Moody's published its 1999 diversity score methodology. UBS and the industry subsequently shifted from market value to cashflow methodology.

Their ranking generally was #3 or #4 in 2004-2006 time frame, depending which ranking one looks at. Did more in ABS CDOs than in loans, i.e. CLOs.

Multisector deals in early 2000s. Shift to more residential real estate assets in 2002; was a “distinct investor push to go into hard assets and residential assets, including some commercial assets.... That market continued to grow. “

Why did ABS CDOs grow like wildfire, grow so much [doubling in size, then redoubling twice]? **“The criteria became more well established and more well known....it became a growth area... I think more and more investors looked at it, considered it a new ABS asset class and started to focus on it and put resources to it; more banks put more resources to it and had desks. You had a pretty rapid expansion over those 3-4 years of the market. CLOs grew too but maybe not as fast. Commercial real estate CDOs did not exist and then suddenly existed and became a decent size of the market. ...Resi (ABS) was the biggest. Roughly half. It became a global market too..... early on big insurance companies out of Germany had a lot of interest. UK conduits were certainly buyers, as well as the US. Over those years it expanded from Korea and Japan down to Australia. Managers became more well known. The market kind of grew from there.”**

Investment grade corporate derivatives was a separate business.

Did not participate in pay as you go swap (PAUG) development for MBS or for CDOs. Secondary CDO trading did report to him.

Did you see large increases in secondary CDO trading? In 2004 Abbey National had a big portfolio of CDOs and CLOs, and “that probably kicked off in everybody’s mind secondary trading”. [Note they divested of a \$4 billion portfolio.] More secondary traders were CLO guys by background. Inherited two traders. Does not recall whether trading volume ratcheted up significantly.

Did you hedge credit risk for warehouses for ABS CDOs? Honestly don’t know as that was the mortgage desk. I do not remember ability to hedge as a focus.

“We tried to focus very much on listening to investors, hearing what the market was telling us, trying to figure out what type of deals did they want to see from us, which managers did they like to see from us, and avoiding the things they did not want to see. Right? From that standpoint, that is where my attention, my focus was”

“In 2004 it was a cash market. I believe that in ‘05 PAUG swaps came in June. We did our first hybrid synthetic deal in the fall.... I don’t know if we were the second guys in the market (to do a hybrid deal). Ron D’Vari at BlackRock did a deal (Tourmaline) with Morgan Stanley, that was a hybrid synthetic of some kind. We did an Ellington deal (Duke).... We spent a lot of time working on our documents and the structure so that there could be a 10 or 15% trading bucket that could go back and forth between cash and synthetics so that a manager could optimize that situation... No one knew exactly how much liquidity you would have in these new ABS or CDS.... We felt it was a smarter structure than the Morgan Stanley structure, for what it is worth.... We came up with something that we thought was useful.... Over time those hybrid synthetic deals just became synthetic deals at some point in 2006.... I think that happened together with the liquidity that was available particularly in the mezzanine space in ABS. There was not a lot of activity (in CDS) in the high grade space, AAAs and AA. There was two way market

trading so there was more liquidity there so people could construct a portfolio and say great over the next four, five, six months I'm going to put together a portfolio of a billion dollars of CDS of ABS."

"Prior to that you had a one-sided conversation. Cash spreads were tight. With the creation of the CDS there could be a two-way conversation....That is a healthy dialogue around spread (interest rate) versus the risk of the underlying collateral.... I have no idea what the volumes were of ABS CDS or how much they increased...."

"I think we had more mezzanine deals than high grade deals in general, even prior to ABS CDS. We did not have a SIV so we were at somewhat of a disadvantage (relative to certain other CDO dealers) in the high grade space." [1:15]

Why were you highly ranked? "We worked hard.....UBS is a global bank, a great bank, well received... The salespeople were good people; worked very hard... We had a lot of repeat managers (multiple deals for the same managers); I was quite proud of it.... We worked hard for our clients."

[Comments about the short side of the ABS CDS market] "I don't think I knew who was on the other side. That was not my role. A manager would typically have a two-sided list of names. They put it out to the marketplace. They'd source the collateral from whoever they could source it from. I certainly did not know even which dealers it came from, and obviously not which clients behind (the dealers) or what they (the buyers of protection) were thinking. Someone was paying a spread... I typically was interacting with the managers on the side managing those assets, generally on the long position..... I never was out looking for short guys." [1:12:30] [note that there could have been others at UBS on the mortgage desk who could have known which dealers had clients with short interest.]

Did UBS have an internal source for purchasing AAAs ... in comparison to Citi's liquidity put program? "I was aware that Citi had a program... and that was competitive advantage (for Citi for high grade CDOs)... UBS did do 2 deals in 2004 high grade deals that had a CP component. Sourced another bank to provide the liquidity backstop for the CP. After that time, term spreads tightened so CP was less of a factor. [1:10] Did CP come back in 2007? I do not recall doing any CP in 2007.

We did some with AIG. [1:06] Monolines stayed active in the cash market.

There was an active bank market in financing the negative basis trade. I remember doing my first one in 2004. **"Prior to that, you were broadly syndicating AAA. Right. You were selling banks around the world, SIVs, conduits, in the UK, etc., etc., \$2 million, \$5 million, \$10 million, \$25 million, \$100 million. I think RBS was a buyer at one point and they could buy up to \$150 million, and that was significant and everybody would run over to see RBS. Or you would run to see the conduits because you would go to London and see 8 guys in a day and they each could take \$25 or 50 million if they liked it. Right. But if they didn't like your manager or your structure or whatever was in their criteria then you were out of luck. Maybe AAAs were harder then because the process was a little bit longer because you needed more investors in the tranche. With the negative basis, that probably was a more competitive environment, you had 2 or 3 guys who wanted to do the financing, and the monolines were pretty**

competitive to win a deal.....but then you had tough negotiations with them and they knew you needed them. [58]

How did you find enough investors for the dramatic growth in the market?

“They (CDOs) all had a manager story to them. Sometimes the manager took no equity, sometimes it took a big chunk, sometimes a little chunk.”

Did other CDOs become a significant outlet for CDO tranches? [56] I’ve never done the math on the amount of CDO². That market was small. CDOs were definitely part of the universe of buyers. Up and down the capital structure. There were buckets.

What were the size of the allowable buckets for CDO tranches within CDOs? I think it was manager specific. Guys like Zais had done CDO². They had a following of people who believed they had their expertise. There were other guys who did not have that expertise. Whether investors viewed the manager as having the expertise.

Did you have any expectation that managers for deals you were underwriting would buy tranches of other CDOs? “No. I can quite honestly tell you no. I really did not get involved with ever telling managers what they should or should not buy, CDOs or anything else quite frankly....” [53]

Did any of your competitors have a different practice in this regard? “Ask them. I don’t know.” [52]

Without these CDO buckets within CDOs would there have been enough demand for the CDO paper to get deals done? **“I think so.... Would you have done one less deal? Maybe. Or, would it have taken an extra 2 weeks? ...If you remove a section of the market, then you have less demand. Do I think that unilaterally would have ended purchasing of some part of the capital structure? No. I don’t think so.”**

Did neg basis trade contribute to increase in volume or speed? I think it increased the size of deals. I am not sure it necessarily sped up the process, dealing with one counterparty when they had your feet to the fire at the end of the road. The negotiation could be dragged out. Rather than finding 10-20 guys. It saved travel time. It probably expanded the ability to do more deals, subject to your ability to sell more of every other tranche.

Did the development of PAUG swaps increase the speed with which assets for CDOs could be accumulated? “Sure... This is more mezzanine.... If the old ramp up was 6 to 9 months for a cash deal, maybe the new one was 3 to 6 months for a synthetic deal. So it was a shorter time frame. It also was a shorter time frame for the warehouse phase was shorter... so maybe we could do 1.5 to 2 times more....” [49]

Correlation trading influence on your business? We looked at it but I am not sure we got very far.

Were there any equity buyers in your deals who you knew were shorting the mortgage or CDO market? What someone did away from me I would not know. [nb this is contradicted from the Magnetar

discussion below.] I think we worked on 3 deals with Magnetar; we introduced them to 3 managers. I think they took all the equity and were short the mezz in the same trade.

Did that raise any questions in your mind? No. They were doing correlation trades just like guys do in the corporate space. [43]

We had some of the correlation trading where we would not sell all the tranches. Correlation trading is being long and short somewhat different credits that they think would perform differently. [41]

That was the premise. You were long the very high part of the capital structure.

How did it turn out? I think everyone knows unfortunately.

The correlation exposure was partly UBS originated deals and other dealers'.

All those super-seniors became worth very little. If you look at neg basis, we thought we had those trades wrapped. But they were novated. [monoline exposure was not worth full credit protection]

Was UBS was intermediary between funder and monoline? We did some of our own.

We had a neg basis book where UBS was funder. I don't know the size. Some was ours (UBS underwritten deals) and some was the rest of the Street. Was this a significant part of your origination? A quarter to a half of ABS CDO AAAs, I'm guessing, I'm not sure. [32] There was quite a few guys who were willing to either be the funder or the credit protectionso there was a competitive environment for those trades. [34]

Why does the CDO market continue on speed once certain negative reports emerged about housing? Spreads widener on the ABS (subprime). There was a debate. "I did not predict the outcome. I would have behaved differently."

"The market shut off pretty rapidly in the back half of 2007. With Ralph and BSAM being a noteworthy point in time."

It was a dramatic decline in the back half of 2007.

How did ABX influence the CDO market for better or worse? [28] It was one more thing to look at. It started its drop in 2007. It was not a perfect representation of what we were doing. ABX was only 20 names. Adding some instrument for people to talk about price and risk is good. But managers were doing something different, 100-150 names right out of the gate. ABX was not a significant part of the asset pool of our deals; maybe someone else's. [23]

Why did this all end badly? It is not a simple answer. Subprime proved not to be a great idea. The expansion put a lot of people in homes who I guess should not have been in homes. A lot of counterparties in a global market. It became a counterparty issue. That counterparty issue was bigger than people ever guessed or thought about. That created a fear above and in itself. [20]

Was CDO exposure a significant part of that counterparty fear? Some of it was CDO some of it was straight mortgages.

What is your view of the role of the rating agencies? **“We all got it wrong on subprime. Right. It was pretty dramatic. That is unfortunate.... I felt I worked at the same place for 15 years. I never thought I would work anywhere else than UBS. The rating agencies had a methodology. It was put out there. It was public. They each had their own. I still think investors do their own work... They looked at the rating agencies but they tried to do their own work as well. A lot of smart people were wrong. Rating agencies got it wrong too. So did money managers, so did hedge funds, so did investors and banks. It is unfortunate.”**

What sort of analysis did investors do? (Take an example) IKB had a big team. They looked at this thing. They had a very developed point of view on what they liked and didn't like. They did due diligence on managers. They went to see servicers and originators. Very developed in their thought process. Quite a rigorous and experienced investor. It still was important that the rating would be there. Everybody was wrong.

What was your sense of investors' view of correlation assumptions within these deals? I don't know. I am not a structuring guy. Not the right guy to ask.

Did you encounter investors who were concerned that a portfolio of BBBs would all expect to perform similarly? **“I sure wish I had met all those guys before. Everyone seems to know that now. I don't know that that was the strong sentiment at the time.... Quite frankly, comparatively speaking CLOs are single Bs and they seemed to have weathered the storm pretty good. There was some logic to the idea, that it worked and made sense. Certainly proved to be wrong. And we can all look at the flaws in it now that maybe seem very obvious to us today but were not at the time. There were a lot of smart people that felt the same way. It's tough to sit there and look back at it....We think securitization makes sense. ... The CLO has healed itself.... It was not as black and white obvious then as it is today.”** [14]

Were the investors in synthetic CDOs different from the investors in cash CDOs? Don't know if there was any difference. Nothing stands out to me. [13]

Investors wanted to know about the manager, wanted to see the performance of the manager, how their deals had performed. They might like or dislike certain assets in the pool.

How much mortgage expertise did investors have? They had some understanding of the markets. There were a lot of investors. (there was diversity among investors.) [9]

Was there pushback from investors when news reports about housing prices started? The pushback happened when BSAM happened. [3]

Looking back on the last few years at UBS is there anything you regret? “I certainly regret the outcome. I wish I had a crystal ball at the time and I knew better what was going to happen. I had a great team. I had 50 people who worked really, really hard at a great bank that I was thrilled to work at. My regrets

are that I am not still there. I was involved in a part of the market that fell as much as dead. It is not the outcome I predicted. I think there is a lot of guys in that market, myself included, that have that feeling. It's extremely frustrating. Spend 20 years of your career working hard and end up with that as the tag line, this discussion, these questions. I don't think there is a simple answer. I think I did a good job, working hard and did it to the best of my abilities with good intent. I think most guys did. The outcome still was the outcome. That didn't change. Do I have regrets? Yeh, I have regrets. I wish that wasn't the outcome. I wish I still was working away hard at UBS with some of those guys that I don't get to work with any more . That is not the case." [3]