A technique for evaluating callable bonds

or

Why the curve drives callable valuations.

A 3-minute guide

Here’s the logic:

Steeper curve>greater price appreciation potential>increases the value of the call>greater spread at issuance.

CONFIRMATION THAT CURVE DRIVES CALLABLE VALUES

"Yesterday, our own David Deaderick sent an email explaining how the value in agency callable securities has increased of late. As David put it, "callables" of all structures have cheapened significantly to bullets, and the "more callable" the structure, the cheaper it is. Although volatility is still relatively low, the steepness of the curve is a strong contributor to the additional spread in callable structures with more optionality."

The government investment officer is offered a lot of callable bonds. Here’s one good pitch in January of this year.

11:45:02 Happy New Year Guy, if a fit, we printed a $1 billion callable deal today that looks interesting. It is a 3nc3mo q berm out of FHLMC. Due to the size of the trade, we received excellent execution on the swap. (The bond priced at L-19 vs. FHLMC posted level of -24). FHLMC 1.8 01/27/20 Corp 100.000 -- at $100. This is the highest yielding 3yr callable in the market and the highest coupon on the structure in >5 years. 3 hikes are already priced into 2017. Pick 28bps ytm to agy benchmark bullet curve. Settles 1/27.

So this is what I look at first:

- I compare the callable bond to a bullet of the same maturity
- Let's look at two bonds from 9/28
- One a FHLB 3 year, non-call one year
- And the new 3 year Freddie that was priced at +9

So, let's start the meat and potatoes of the analysis.
This is the NIM page which shows a FHLB 3 year-non call 1 year.

GRAB
4 <GO> to Set Current Selection as Default

95) Actions | 96) Alerts | 97) Export | 98) Summary | 99) Set Homepage | New Issue Monitor

Selection U.S. Bond Market (NIM 1) | 1) Show Filters | 2) Clear Filters | Issues & News

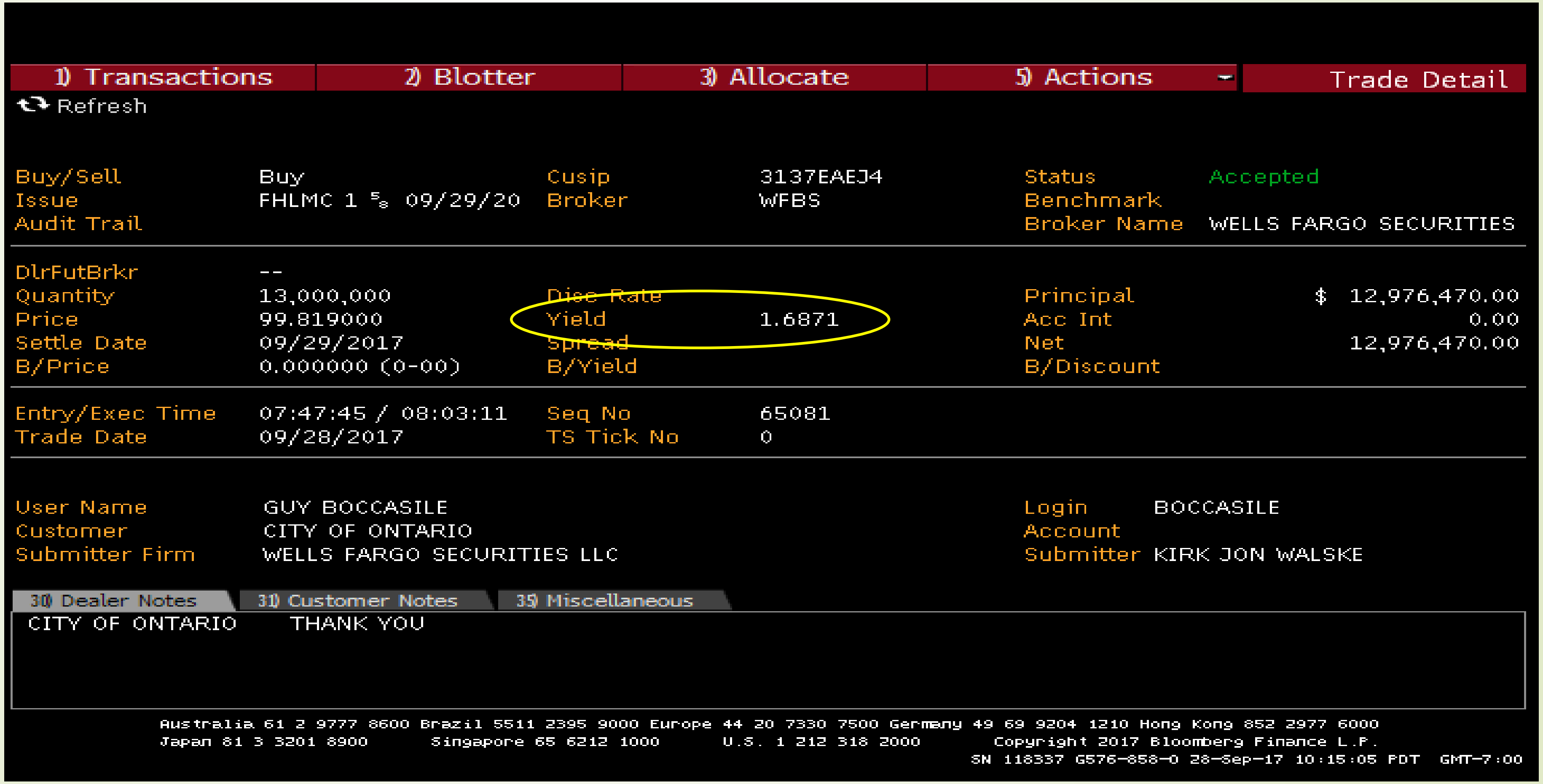
Real Time Monitoring | Issue History | Date Range 08/28/17 – 09/28/17

	Date	Issuer/Headline	Coupon	Maturity	Spread	Curr	Outst	Book Mgr	Note
			All	All	All	All	All		
101)	09/28	TALK: Caesars $1.7B 8NC3 Sr Notes 5%-5.25%							
102)	09/28	GUIDANCE: Canadian Imperial Bank of Commerce $Bmark 3y Fxd/FRN							
103)	09/28	FED HOME LN BANK	1.250	09/28/18		USD	260	JOINT LEADS	1-NC
104)	09/28	GUIDANCE: Smithfield Foods Inc. $400M WNG 4Y +120a (+/-2)							
105)	09/28	FED HOME LN BANK	2.000	09/13/19		USD	1.4B	MS,NOM	6-NC INC
106)	09/28	FED HOME LN BANK	2.375	12/13/19		USD	987.06	NOM-sole	6-NC INC
107)	09/28	PRICED: EBRD $500m 7/2021 Green Bond MS +3 (UST +33.2)							
108)	09/28	EURO BK RECON&DV	1.875	07/15/21		USD	500	JOINT LEADS	10/05/17
109)	09/28	FED HOME LN BANK	3.000	09/11/26		USD	530	TDSEC-sole	12-NC INC
110)	09/28	FED HOME LN BANK	2.875	09/13/24		USD	807.48	FCS-sole	10-NC INC
111)	09/28	Colbun Hires Banks For FI Investor Meetings From September 29							
112)	09/28	TALK: SBA Communications $500M 5NC2 Sr Notes 4%-4.25%							
113)	09/28	FED FARM CREDIT	1.650	10/05/20		USD	55	HSBC-sole	3-NC
114)	09/28	LAUNCH: Sibur Securities $500m 6Y Notes 4.15%							
115)	09/28	FED FARM CREDIT	2.000	10/05/21		USD	71	JOINT LEADS	4-NC1 CONT
116)	09/28	FED HOME LN BANK	1.750	10/19/20		USD	65	JOINT LEADS	3-NC1 1X INC
117)	09/28	Braskem Hires Banks to Organize FI Investor Mtgs From Oct. 2							
118)	09/28	Client Selling of New 3Y Freddie Mac Leads Flows							

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2017 Bloomberg Finance L.P.
SN 118337 G576-858-0 28-Sep-17 9:58:01 PDT GMT-7:00

Here's the call schedule.

Let's compare to the 3 year Freddie that came the same day. The 1 5/8% of 9/29/20.



So we’ve got a 3 year bullet Freddie and 3 year, non-call one year FHLB

- The Freddie Mac bullet is a 1 5/8% maturing 9/29/20
- The Home Loan callable bond is a 1 3/4% maturing 10/19/20. The maturity reflects the longer settlement
- We’re not exactly comparing apples and oranges but they’re close enough for this analysis

Potential price appreciation

Callable bond – not much…

In the first year, essentially this bond will behave like a one year piece of paper. So if the market goes up, this bond has some slight appreciation potential.

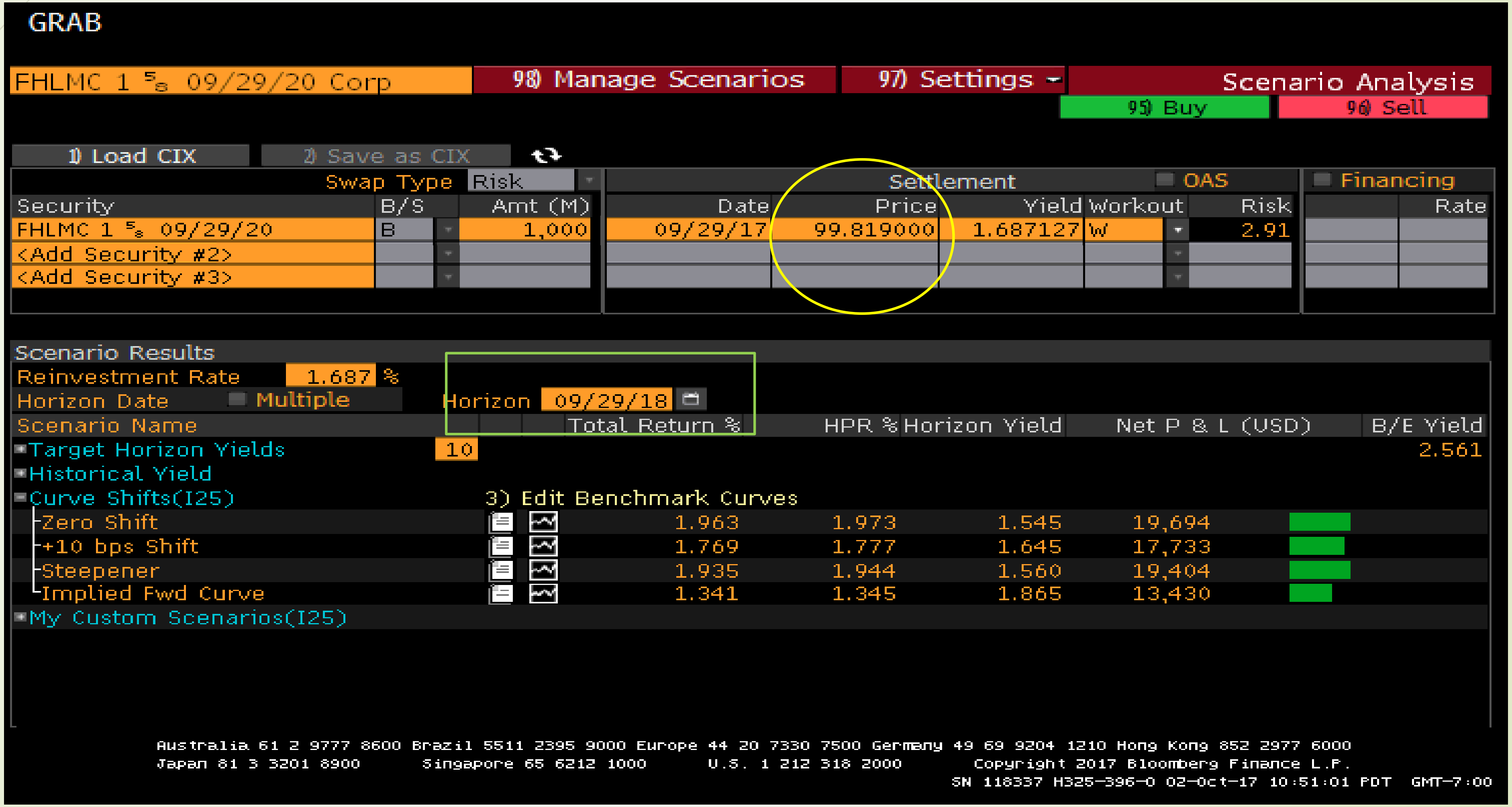
If the market really rallies, then one year from now this bond will be called and you'll earn 1.75% for a year.

The Freddie will move like any 3 year bond with a duration of 2.91

So, this is what I do. I look at where the 3 year Freddie Mac bullet will be in 1 year – the first call date of the Home Loan callable bond.

- And then see which bond will make you better off.
- BUT how do we know where the 3 year note will be in a year?
- Obviously we don't.
- But we do know the bond will roll down the curve!

How do we do that? Through the magic of Bloomberg. The FISA page.



Let's review

- The 3 year- 1 year Home Loan will return 1.75% if called in one year
- The 3 year Freddie will roll down the curve, and in an unchanged rate environment, return 1.96% in one year
- Now, all of you are thinking, rates are never unchanged over a one year time horizon, right?
- BUT, the point of this exercise is not to predict where rates will be one year from today, or even tomorrow.

What we’re trying to figure out is – am I getting paid enough TODAY to take on the call risk of buying a callable bond?

Addendum

- You can use this approach for any callable bond
- Once you get the hang of it, you can do it quickly
- I can do it while I have the salesman on the phone and give him/her a pretty quick yes/no or **my personal favorite**…

Let me chew on it for a while.

Conclusion

- You’ll hear about OAS, AOAS, Swap spreads, etc
- But my take is this – if they won’t even pay you what the curve is worth…
- Why do any of the other, more complicated analysis?
- **Do this step first** – and then if the bond makes the cut, move on to the more esoteric stuff.