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SOMBII

Hedging Exercise

Objective:

Apply tools learned in the Pipeline Hedging session. Students will have opportunity to "mock hedge" a $10 Million Pipeline.

Overview:

1. **You have been hired to hedge the Pipeline of Taglia Mortgage Company.**
2. **You have complete discretion to construct hedge, but must justify position with ALCO.**
3. **You can use any combination of MBS Forwards (TBAs) and Puts, but the total can not be more than $10 Million.**
4. **You will get 3 chances to construct your hedge. The winner will be the individual with the largest CUMULATIVE gain. If a tie occurs, the winner will be the individual with the smallest DAILY gain or lose (lowest volatility).**
5. **The goal is not winning (although it's nice), but rather to avoid being a big loser!**

EXPOSURE

* **$10 Million Pipeline. 100% newly originated 60 day rate locks - all 30 yr conforming product**
  Your preliminary reports show that you will close 70% in a flat market.
* **You make your determination as to what coverage should be taken.**
  NOTE: The 70% Closing Ratio MAY change based on market direction!
* **Be willing to defend your action based on your "read" of the market and risk tolerance.**

COVERAGE TAKEN

MBS Forwards:	**Sell**	**($1MM each / Sell @ Par)**	**#_________MM**
MBS Put Options:	**Buy**	**($1MM Put At The Money / Cost, 1pt)**	**#_________MM**

MARKET ACTION

Pete to give us "market breaking news" and impact on Fixed Income Markets.

MARK TO MARKET

Effect on Pipeline: **_______pt Change X ______MM =** **$_____________**
($10MM X Actual Closing Ratio)

Effect on Coverage:

MBS **_______pt Change X ______MM = $_____________**

Puts ***(=> $ 0)*** **_______pt Change X ______MM = $_____________**

Cost of Puts **1 pt X ______MM = $(__________)**

$_____________

NET PIPELINE IMPACT: **$_____________**

Note 8: Mortgage Banking Activities

Mortgage banking activities, included in the Community Banking and Wholesale Banking operating segments, consist of residential and commercial mortgage originations, sale activity and servicing.

We apply the amortization method to commercial MSRs and apply the fair value method to residential MSRs. The changes in MSRs measured using the fair value method were:

		Quarter ended Sep 30,		Nine months ended Sep 30,	
(in millions)		**2015**	2014	**2015**	2014
Fair value, beginning of period	$	**12,661**	13,900	**12,738**	15,580
Servicing from securitizations or asset transfers		**448**	340	**1,184**	900
Sales and other (1)		**6**	—	**—**	—
Net additions		**454**	340	**1,184**	900
Changes in fair value:					
Due to changes in valuation model inputs or assumptions:					
Mortgage interest rates (2)		**(858)**	251	**(313)**	(1,134)
Servicing and foreclosure costs (3)		**(18)**	(4)	**(46)**	(15)
Discount rates (4)		**—**	—	**—**	(55)
Prepayment estimates and other (5)		**43**	6	**(194)**	181
Net changes in valuation model inputs or assumptions		**(833)**	253	**(553)**	(1,023)
Other changes in fair value (6)		**(504)**	(462)	**(1,591)**	(1,426)
Total changes in fair value		**(1,337)**	(209)	**(2,144)**	(2,449)
Fair value, end of period	$	**11,778**	14,031	**11,778**	14,031

(1) Includes sales and transfers of MSRs, which can result in an increase of total reported MSRs if the sales or transfers are related to nonperforming loan portfolios.
(2) Includes prepayment speed changes as well as other valuation changes due to changes in mortgage interest rates (such as changes in estimated interest earned on custodial deposit balances).
(3) Includes costs to service and unreimbursed foreclosure costs.
(4) Reflects discount rate assumption change, excluding portion attributable to changes in mortgage interest rates.
(5) Represents changes driven by other valuation model inputs or assumptions including prepayment speed estimation changes and other assumption updates. Prepayment speed estimation changes are influenced by observed changes in borrower behavior and other external factors that occur independent of interest rate changes.
(6) Represents changes due to collection/realization of expected cash flows over time.

The changes in amortized MSRs were:

		Quarter ended Sep 30,		Nine months ended Sep 30,	
(in millions)		**2015**	2014	**2015**	2014
Balance, beginning of period	$	**1,262**	1,196	**1,242**	1,229
Purchases		**45**	47	**96**	119
Servicing from securitizations or asset transfers		**35**	29	**131**	67
Amortization		**(65)**	(48)	**(192)**	(191)
Balance, end of period (1)	$	**1,277**	1,224	**1,277**	1,224
Fair value of amortized MSRs:					
Beginning of period	$	**1,692**	1,577	**1,637**	1,575
End of period		**1,643**	1,647	**1,643**	1,647

(1) Commercial amortized MSRs are evaluated for impairment purposes by the following risk strata: agency (GSEs) and non-agency. There was no valuation allowance recorded for the periods presented on the commercial amortized MSRs.

We present the components of our managed servicing portfolio in the following table at unpaid principal balance for loans serviced and subserviced for others and at book value for owned loans serviced.

(in billions)	Sep 30, 2015	Dec 31, 2014
Residential mortgage servicing:		
Serviced for others	$ 1,323	1,405
Owned loans serviced	346	342
Subserviced for others	4	5
Total residential servicing	1,673	1,752
Commercial mortgage servicing:		
Serviced for others	470	456
Owned loans serviced	121	112
Subserviced for others	7	7
Total commercial servicing	598	575
Total managed servicing portfolio	$ 2,271	2,327
Total serviced for others	$ 1,793	1,861
Ratio of MSRs to related loans serviced for others	0.73%	0.75

The components of mortgage banking noninterest income were:

		Quarter ended Sep 30,		Nine months ended Sep 30,	
(in millions)		2015	2014	2015	2014
Servicing income, net:					
Servicing fees:					
Contractually specified servicing fees		$ 1,001	1,058	3,029	3,217
Late charges		48	49	147	153
Ancillary fees		69	74	221	241
Unreimbursed direct servicing costs (1)		(128)	(262)	(371)	(494)
Net servicing fees		990	919	3,026	3,117
Changes in fair value of MSRs carried at fair value:					
Due to changes in valuation model inputs or assumptions (2)	(A)	(833)	253	(553)	(1,023)
Other changes in fair value (3)		(504)	(462)	(1,591)	(1,426)
Total changes in fair value of MSRs carried at fair value		(1,337)	(209)	(2,144)	(2,449)
Amortization		(65)	(48)	(192)	(191)
Net derivative gains from economic hedges (4)	(B)	1,086	17	1,021	2,175
Total servicing income, net		674	679	1,711	2,652
Net gains on mortgage loan origination/sales activities		915	954	3,130	2,214
Total mortgage banking noninterest income		$ 1,589	1,633	4,841	4,866
Market-related valuation changes to MSRs, net of hedge results (2)(4)	(A)+(B)	$ 253	270	468	1,152

(1) Primarily associated with foreclosure expenses and unreimbursed interest advances to investors.
(2) Refer to the changes in fair value of MSRs table in this Note for more detail.
(3) Represents changes due to collection/realization of expected cash flows over time.
(4) Represents results from economic hedges used to hedge the risk of changes in fair value of MSRs. See Note 12 (Derivatives Not Designated as Hedging Instruments) for additional discussion and detail.

The table below summarizes the changes in our liability for mortgage loan repurchase losses. This liability is in "Accrued expenses and other liabilities" in our consolidated balance sheet and the provision for repurchase losses reduces net gains on mortgage loan origination/sales activities in "Mortgage banking" in our consolidated income statement.

Because of the uncertainty in the various estimates underlying the mortgage repurchase liability, there is a range of losses in excess of the recorded mortgage repurchase liability that is reasonably possible. The estimate of the range of possible loss for representations and warranties does not represent a probable loss, and is based on currently available information, significant judgment, and a number of assumptions that are subject to change. The high end of this range of reasonably possible losses was $928 million in excess of our recorded liability at September 30, 2015, and was determined based upon modifying the assumptions (particularly to assume significant changes in investor repurchase demand practices) used in our best estimate of probable loss to reflect what we believe to be the high end of reasonably possible adverse assumptions.

		Quarter ended Sep 30,		Nine months ended Sep 30,	
(in millions)		**2015**	2014	**2015**	2014
Balance, beginning of period	$	**557**	766	**615**	899
Provision for repurchase losses:					
Loan sales		**11**	12	**34**	34
Change in estimate (1)		**(17)**	(93)	**(74)**	(135)
Net additions (reductions)		**(6)**	(81)	**(40)**	(101)
Losses		**(13)**	(16)	**(37)**	(129)
Balance, end of period	$	**538**	669	**538**	669

(1) Results from changes in investor demand, mortgage insurer practices, credit and the financial stability of correspondent lenders.

12. Sales of Receivables and Servicing Rights

Residential Mortgage TDR Loan Sale

In March of 2015, the Bancorp recognized a $37 million gain, included in other noninterest income in the Condensed Consolidated Statements of Income, on the sale of certain HFS residential mortgage loans with a carrying value of $568 million that were previously modified in a TDR. As part of this sale, the Bancorp provided certain standard representations and warranties. Additionally, the Bancorp did not obtain servicing responsibilities on the sales of these loans and the investors have no credit recourse to the Bancorp's other assets for failure of debtors to pay when due.

Residential Mortgage Loan Sales

The Bancorp sold fixed and adjustable rate residential mortgage loans during the three and nine months ended September 30, 2015 and 2014. In those sales, the Bancorp obtained servicing responsibilities and the investors have no recourse to the Bancorp's other assets for failure of debtors to pay when due however the Bancorp provided certain standard representations and warranties. The Bancorp receives annual servicing fees based on a percentage of the outstanding balance. The Bancorp identifies classes of servicing assets based on financial asset type and interest rates.

Information related to residential mortgage loan sales and the Bancorp's mortgage banking activity, which is included in mortgage banking net revenue in the Condensed Consolidated Statements of Income, is as follows:

	For the three months ended September 30,		For the nine months ended September 30,	
($ in millions)	**2015**	2014	**2015**	2014
Residential mortgage loan sales[a]	$ **1,421**	1,228	**3,798** [b]	4,423
Origination fees and gains on loan sales	**46**	34	**134**	117
Gross mortgage servicing fees	**54**	61	**169**	186

(a) Represents the unpaid principal balance at the time of the sale.

*(b) Excludes **$568** of HFS residential mortgage loans previously modified in a TDR that were sold during the first quarter of 2015.*

Servicing Rights

The following table presents changes in the servicing rights related to residential mortgage and automobile loans for the nine months ended September 30:

($ in millions)	**2015**	2014
Carrying amount before valuation allowance as of the beginning of the period	$ **1,392**	1,440
Servicing rights that result from the transfer of residential mortgage loans	**48**	60
Amortization	**(111)**	(89)
Carrying amount before valuation allowance	**1,329**	1,411
Valuation allowance for servicing rights:		
Beginning balance	**(534)**	(469)
Provision for MSR impairment	**(38)**	(7)
Ending balance	**(572)**	(476)
Carrying amount as of the end of the period	$ **757**	935

Amortization expense recognized on servicing rights for the three months ended September 30, 2015 and 2014 was $37 million and $34 million, respectively. For the nine months ended September 30, 2015 and 2014, amortization expense was $111 million and $89 million, respectively. The Bancorp's projections of amortization expense shown below are based on existing asset balances and static key economic assumptions as of September 30, 2015. Future amortization expense may vary from these projections.

Estimated amortization expense for the remainder of 2015 through 2019 is as follows:

($ in millions)	Total
Remainder of 2015	$ 34
2016	127
2017	114
2018	103
2019	93

Temporary impairment or impairment recovery, affected through a change in the MSR valuation allowance, is captured as a component of mortgage banking net revenue in the Condensed Consolidated Statements of Income. The Bancorp maintains a non-qualifying hedging strategy to manage a portion of the risk associated with changes in the value of the MSR portfolio. This strategy may include the purchase of free-standing derivatives and various available-for-sale securities. The interest income, mark-to-market adjustments and gain or loss from sale activities associated with these portfolios are expected to economically hedge a portion of the change in value of the MSR portfolio caused by fluctuating discount rates, earnings rates and prepayment speeds. The fair value of the servicing asset is based on the present value of expected future cash flows.

The following table displays the beginning and ending fair value of the servicing rights for the nine months ended September 30:

($ in millions)		2015	2014
Fixed-rate residential mortgage loans:			
Beginning balance	$	**823**	929
Ending balance		**731**	898
Adjustable-rate residential mortgage loans:			
Beginning balance		**33**	38
Ending balance		**25**	35
Fixed-rate automobile loans:			
Beginning balance		**2**	4
Ending balance		**1**	2

The following table presents activity related to valuations of the MSR portfolio and the impact of the non-qualifying hedging strategy, which is included in mortgage banking net revenue in the Condensed Consolidated Statements of Income:

		For the three months ended September 30,		For the nine months ended September 30,	
($ in millions)		**2015**	2014	**2015**	2014
Changes in fair value and settlement of free-standing derivatives purchased to economically hedge the MSR portfolio	$	**85**	(22)	**119**	40
(Provision for) recovery of MSR impairment		**(77)**	21	**(38)**	(7)

As of September 30, 2015 and 2014, the key economic assumptions used in measuring the interests in residential mortgage loans that continued to be held by the Bancorp at the date of sale or securitization resulting from transactions completed during the three months ended were as follows:

		September 30, 2015				September 30, 2014			
	Rate	Weighted-Average Life (in years)	Prepayment Speed (annual)	OAS Spread (bps)	Weighted-Average Default Rate	Weighted-Average Life (in years)	Prepayment Speed (annual)	Discount Rate (annual)	Weighted-Average Default Rate
Residential mortgage loans:									
Servicing rights	Fixed	**7.4**	**10.9 %**	**674**	**N/A**	7.0	10.5 %	9.9 %	N/A
Servicing rights	Adjustable	**2.8**	**32.9**	**671**	**N/A**	3.7	22.2	11.8	N/A

During the first quarter of 2015, the Bancorp adopted an OAS valuation approach for valuing its MSRs. This approach projects servicing cash flows over multiple interest rate scenarios, which are then discounted at risk-adjusted rates.

Based on historical credit experience, expected credit losses for residential mortgage loan servicing rights have been deemed immaterial, as the Bancorp sold the majority of the underlying loans without recourse. At September 30, 2015 and December 31, 2014, the Bancorp serviced $60.3 billion and $65.4 billion, respectively, of residential mortgage loans for other investors. The value of MSRs that continue to be held by the Bancorp is subject to credit, prepayment and interest rate risks on the sold financial assets.

At September 30, 2015, the sensitivity of the current fair value of residual cash flows to immediate 10%, 20% and 50% adverse changes in prepayment speed assumptions and immediate 10% and 20% adverse changes in other assumptions are as follows:

				Prepayment Speed Assumption					Residual Servicing Cash Flows			
						Impact of Adverse Change on Fair Value					Impact of Adverse Change on Fair Value	
($ in millions)[a]	Rate		Fair Value	Weighted-Average Life (in years)	Rate		10%	20%	50%	OAS Spread (bps)		10%	20%
Residential mortgage loans:													
Servicing rights	Fixed	$	731	5.7	11.7 %	$	(34)	(66)	(146)	706	$	(19)	(37)
Servicing rights	Adjustable		25	2.5	32.7		(2)	(3)	(7)	668		-	(1)

(a) The impact of the weighted-average default rate on the current fair value of residual cash flows for all scenarios is immaterial.

These sensitivities are hypothetical and should be used with caution. As the figures indicate, changes in fair value based on these variations in the assumptions typically cannot be extrapolated because the relationship of the change in assumption to the change in fair value may not be linear. The Bancorp believes variations of these levels are reasonably possible; however, there is the potential that adverse changes in key assumptions could be even greater. Also, in the previous table, the effect of a variation in a particular assumption on the fair value of the interests that continue to be held by the Bancorp is calculated without changing any other assumption; in reality, changes in one factor may result in changes in another (for example, increases in market interest rates may result in lower prepayments), which might magnify or counteract these sensitivities.

GSE REFORM — WHAT YOU NEED TO KNOW

MBA's Road Map for the Housing Finance System

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A successful secondary mortgage market needs to produce a more stable and competitive system for lenders.

Nearly seven years after being placed in conservatorship, Fannie Mae and Freddie Mac continue to play a central role in the U.S. mortgage market. Congress is considering legislative proposals to reform the secondary mortgage market, and these efforts could gain momentum.

MBA believes a successful secondary mortgage market needs to produce a more stable and competitive system for lenders. Any transition to an improved system must retain and redeploy key aspects of the GSEs' existing infrastructures, including certain operational functions, systems, people and business processes.

In order to prevent disruptions to day-to-day business activities of lenders and to ensure a fair, competitive and efficient secondary mortgage market, any new proposal must be carefully phased in.

MBA's Principles for the Future of the Secondary Mortgage Market

MBA believes that the secondary market should:

★ Ensure equitable, transparent and direct access to secondary market programs for lenders of all sizes and business models;

★ Preserve key GSE assets — technology, systems, data and people — by transferring them to any new entities created by GSE reform, or placing them into a public utility;

★ Promote liquidity and stability by connecting global capital to the U.S. mortgage market;

★ Provide an efficient means of hedging interest rate risk through a robust TBA single-family market;

★ Provide for a consistent offering of core products, including the 30-year, fixed-rate, prepayable single-family mortgage, as well as multifamily mortgages that support the vital rental housing market;

★ Provide sufficient liquidity to ensure certainty on mortgage transactions for qualified borrowers; and

★ Rely on a single, highly liquid, government-guaranteed, single-family security that is delivered through a common securitization platform, as well as government-guaranteed multifamily securities.

★ Achieving these objectives will require:

★ An explicit government guarantee for mortgage securities, backed by a well-defined class of high-quality single-family and multifamily mortgages;

★ Protection for taxpayers through deep credit enhancement that puts private capital in a first-loss position, with no institution too big to fail; and

★ Fair and transparent guarantee fees to create an FDIC-like federal insurance fund in the event of catastrophic losses.

Any improved secondary mortgage system should utilize familiar and operationally reliable business systems and processes of the current GSE model.

Whether by Congressional action or FHFA's activities as regulator / conservator, change to the secondary mortgage market can't be avoided. Additionally, the lack of effective competition between the GSEs in the single-family mortgage market is having a negative effect on lenders large and small, regardless of business model. With both short- and long-term steps to improve the housing finance system, MBA is engaging with policymakers to shape the debate.

Core Components of a Future System

MBA believes that any improved secondary mortgage system should utilize familiar and operationally reliable business systems and processes of the current GSE model. It should also include components to ensure access for lenders of all sizes. Some examples of what the new model should deliver include the following functions:

★ Cash Window / Whole Loan Execution;

★ Multi-Lender Security Execution;

★ Single-Loan Securitization;

★ Servicing Retained Sales;

★ Servicing Released Sales; and

★ Retain Multifamily Executions that Incorporate Private Capital.

Single-family lenders should be able to utilize familiar credit enhancement options, such as mortgage insurance, to facilitate secondary market transactions in a timely and orderly way. Key functions present in today's secondary market system should be preserved, while allowing new forms of private credit enhancement to develop over time.

The future system also should build upon the strengths of the GSEs' multifamily businesses that have incorporated substantial risk sharing with private capital and disciplined underwriting. Multiple guarantors should work with lenders to provide ongoing liquidity in all market cycles, in competition with a range of capital sources that finance multifamily rental housing.

Policymakers must establish clear and effective guidance to the GSEs to sustainably serve lower and moderate income earners.

There are important steps that can be taken now — without legislative action — to improve current secondary market operations...

Improving the Secondary Mortgage Market Today

Although Congress is certainly engaged in the debate over the future of the GSEs, the legislative path for structural reform could still take years. MBA believes there are important steps that can be taken now — without legislative action — to improve current secondary market operations, enhance competition and ensure a smooth transition to any future end state:

1. Address the trading and liquidity differential between Fannie MBS and Freddie PCs by making the securities fungible for TBA delivery or driving towards a common security.

2. Implement up-front and back-end risk-sharing options to allow lenders to secure deeper credit enhancements in exchange for lower guarantee fees and Loan-Level Price Adjustments, which will bring price transparency and competition to consumers.

3. Strengthen small-lender execution options and provide equal access to existing GSE programs for all qualified lenders.

4. Develop a clear approach for defining the credit box for the GSEs, in order to prevent a tightening of credit should the GSE "patch" in the Qualified Mortgage rule be eliminated. A related effort is to produce a common framework for representations and warranties to provide lenders the certainty and confidence to lend to the full extent of the allowable credit box.

5. Provide greater private sector input into the development of the Common Securitization Platform (CSP) to ensure its maximum utility for the entire single-family mortgage market.

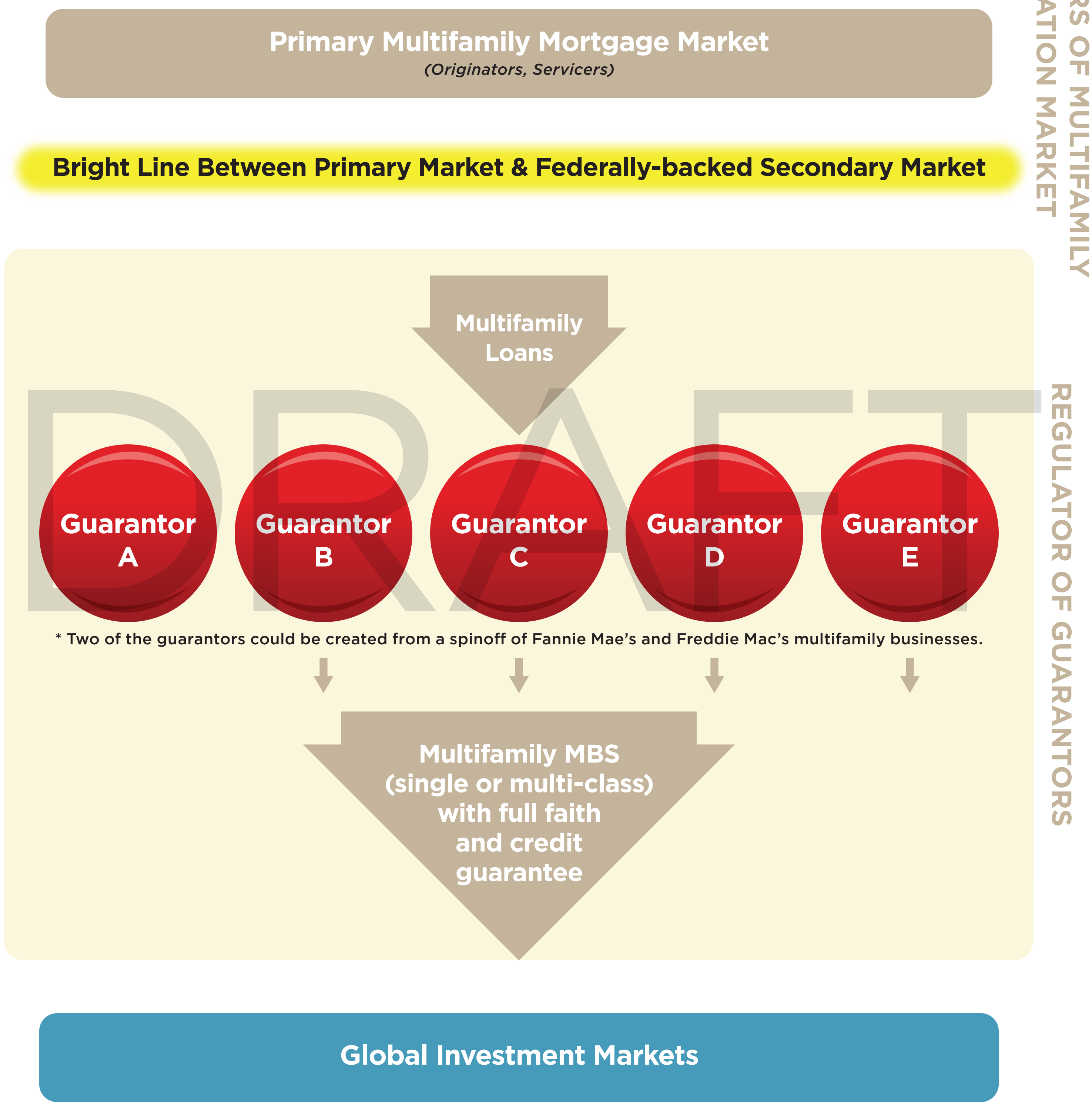
6. Prepare for the future of the multifamily rental housing market by preserving the infrastructure, expertise and a government role with regard to the two GSE multifamily businesses, and explore their stand-alone capabilities as a transition step.

Conclusion

MBA recognizes that successful secondary mortgage market reform needs to produce a more stable and competitive system for all lenders, with greater protections for borrowers and taxpayers. This system would utilize familiar and operationally reliable business systems, processes, and personnel from the current GSE model. It is essential that any new system be accessible by lenders of all sizes and business models. A robust and competitive marketplace benefits everyone, including borrowers taxpayers, and our system.

13196 Aug. 24, 2015

Future Multifamily Housing Finance System



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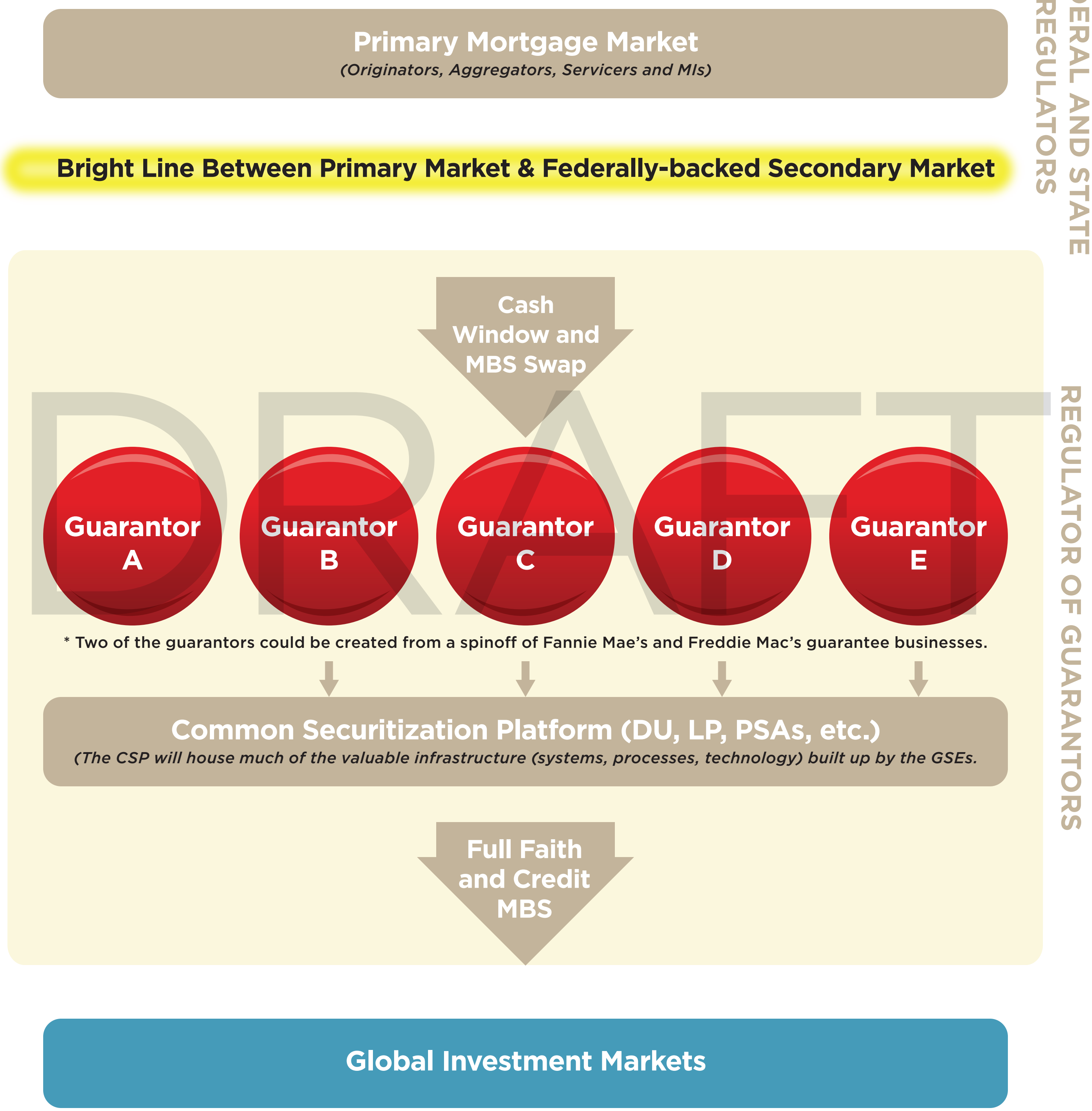
Future Single-Family Housing Finance System



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Pricing & Execution – Whole Loan

Pricing & Execution – Whole Loan (PE – Whole Loan) enhances, replaces, and combines Fannie Mae's current committing applications, eCommitting™ (eC) and eCommitONE® (eC1)!

Making it easier to do business with Fannie Mae…

PE – Whole Loan Transition in 2015

- The PE – Whole Loan application retains most of the features available today while introducing some exciting **new features** to the committing and pipeline management experience.
- PE – Whole Loan will be available via a phased rollout throughout 2015.
    - The **transition is seamless**, no registration or process changes will be required, and each lender's commitments and access will be migrated directly from eC and eC1 into PE – Whole Loan. Users will be notified of their transition date via email 60 days in advance.

PE – Whole Loan Benefits and Features…

- Mandatory and best efforts execution on a single platform
- Intuitive committing experience
    - Multi-price download offers pricing and execution efficiency
    - Customized browse pricing templates to better meet rate sheet and committing needs
    - Pass-through rate highlighting enables easy transition from browsing to committing
    - Tailored user experience based on most frequent actions
- Enhanced views into your pipeline
    - Upcoming commitment expirations displayed at log-in
    - Robust committing and delivery activity details
- E-mail notifications for commitments, pair-offs, over-deliveries, and extensions
- Comprehensive fee reporting
- Advanced Search functionality

Feedback from Early Adopters of PE – Whole Loan:

"Being able to look at pricing for more than one product at a time makes setting rates faster every day."

"Makes my job easier!" *"Very user friendly."*

"The transition was seamless, website is easy to navigate, and new features improve daily work function."

PE – Whole Loan Support

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- FAQs
- And more!