# 7.19 Mortgage-Backed Security (MBS) Instrument and Market Features.

#### **Question 1**

The pass-through rate for a mortgage pass-through security *most likely* refers to the:

A. security's coupon rate.

B. monthly prepayment rate on the underlying loans.

C. weighted average coupon rate of the underlying mortgage loans.

#### Question 2

An issuer constructs a mortgage pass-through security with the following underlying collateral:

Mortgage	Remaining balance (\$ thousands)	Mortgage rates (%)	Months of maturity remaining
А	80	4.5	48
В	100	5.0	60
С	120	4.7	72

If the issuer charges a servicing fee of 25 basis points, then the pass-through rate is *closest* to:

A. 4.48%

B. 4.50%

C. 4.75%

#### **Question 3**

The risk to the cash flows investors receive from agency pass-through mortgage-backed securities is *most likely* related to:

A. prepayment risk.

B. reinvestment risk.

C. borrower defaults.

#### **Question 4**

A portfolio of government securities is constructed to match the cash flow stream of the interest and principal payments of a commercial mortgage and to effectively retire that mortgage. This process is *best* described as a:

A. defeasance.

B. sinking fund.

C. securitization.

# **Question 5**

For a commercial mortgage loan, a high debt service coverage ratio coupled with a low loan-to-value ratio is *most likely* indicative of:

- A. low credit risk.
- B. high balloon risk.
- C. low prepayment risk.

# **Question 6**

For commercial mortgage—backed securities, which of the following mechanisms is *least likely* to provide call protection at the loan level?

- A. Prepayment lockout
- B. Sequential-pay tranches
- C. Yield maintenance charge

#### **Question 7**

A homeowner borrowed \$850,000 in a 30-year fully amortizing recourse mortgage loan to purchase a house that secures the loan. The borrower defaults on the loan at the end of Year 3, when the loan has been amortized by \$25,000. Interest rates have increased so that the present value of the loan is \$800,000. If the lender forecloses on the loan and receives \$750,000 from the sale of the house, the amount that the lender can recover from the borrower is *closest* to:

- A. \$50,000
- B. \$75,000
- C. \$100,000

#### **Question 8**

Which of the following *best* describes a consequence of a nonrecourse mortgage loan in the event of default?

- A. The borrower cannot be forced into foreclosure.
- B. The borrower can be held liable for the entire loan balance.
- C. The lender receives only the proceeds from the sale of the property.

# **Question 9**

An issuer creates a sequential-pay collateralized mortgage obligation that consists of Tranches A, B, C, and D. The face value of each tranche is paid in order of seniority, with Tranche A the most senior and Tranche D the least senior. The collateral consists of 30-year residential mortgages. An investor in Tranche D *most likely* assumes a greater exposure to:

- A. balloon risk.
- B. extension risk.
- C. contraction risk.

#### **Question 10**

Which of the following types of residential mortgage loan is *least likely* to result in a balloon payment at maturity?

- A. Interest-only
- B. Fully amortizing
- C. Partially amortizing

#### **Question 11**

A local bank advertises the availability of 30-year home mortgages that carry a 4% annual interest rate for the first 10 years. After that, the interest rate becomes variable until maturity. This type of mortgage is *most likely* a:

- A. hybrid mortgage.
- B. variable mortgage.
- C. convertible mortgage.

#### **Question 12**

Which of the following is *most likely* a credit enhancement for commercial mortgage-backed securities (CMBS)?

- A. Subordination
- B. Call protection
- C. Limits on loan-to-value ratio (LTV)

## **Question 13**

Which of the following is *most likely* a difference between mortgage pass-through securities and collateralized mortgage obligations (CMOs)?

- A. CMOs contain multiple tranches.
- B. CMOs eliminate prepayment risk.
- C. Pass-throughs reallocate prepayment risk.

## **Question 14**

Of the following investments, the one that *most likely* offers the greatest protection against contraction risk is a:

- A. commercial mortgage-backed security.
- B. residential mortgage pass-through security.
- C. support tranche of a planned amortization class security.

### **Question 15**

An analyst finds that a mortgage pass-through security issued three years ago has a prepayment rate of 200 PSA. The analyst's *most appropriate* conclusion is that the:

- A. prepayment assumption is 2% annually.
- B. prepayment assumption is half the PSA benchmark.
- C. collateral had many mortgages at above-market rates.

#### **Question 16**

A corporate bond with a 6% annual coupon rate, paid monthly, is quoted at a 5.5% YTM. If the YTM is restated as a bond with semiannual payments, the restated YTM is *closest* to:

- A. 5.56%
- B. 5.58%
- C. 5.64%

## **Question 17**

In a nonagency residential mortgage-backed security (RMBS) where a significant portion of the securitized mortgages are nonrecourse and underwater, bondholders are *most likely* exposed to:

- A. contraction risk.
- B. interest rate risk.
- C. strategic default risk.

#### **Question 18**

When interest rates are rising, investors in residential mortgage—backed securities are *most likely* to be exposed to higher-than-expected:

- A. default risk.
- B. extension risk.
- C. contraction risk.

# **Question 19**

A convertible mortgage is a loan that is *best* described as one that the borrower can convert from a(n):

- A. nonrecourse to a recourse loan.
- B. interest-only to an amortizing loan.
- C. fixed-rate to an adjustable-rate loan.