Note 8. Investments in Government-Sponsored Enterprises

Congress established Fannie Mae and Freddie Mac as GSEs to support mortgage lending. A key function of the GSEs is to purchase mortgages, package those mortgages into securities, which are subsequently sold to investors, and guarantee the timely payment of principal and interest on these securities.

Leading up to the financial crisis, increasingly difficult conditions in the housing market challenged the soundness and profitability of the GSEs, thereby threatening to undermine the entire housing market. In response Congress passed *Housing and Economic Recovery Act of 2008* (HERA) (P.L.110-289) in July 2008. This act created FHFA, with enhanced regulatory authority over the GSEs, and provided the Secretary of the Treasury with certain authorities intended to ensure the financial stability of the GSEs, if necessary. In September 2008, FHFA placed the GSEs under conservatorship and Treasury invested in the GSEs by entering into a SPSPA with each GSE. These actions were taken to preserve the GSEs' assets, ensure a sound and solvent financial condition, and mitigate systemic risks that contributed to market instability.

The purpose of such actions is to maintain the solvency of the GSEs so they can continue to fulfill their vital roles in the home mortgage market while the Administration and Congress determine what structural changes should be made to the housing finance system. Draws under the SPSPAs result in an increased investment in the GSEs as further discussed below. For fiscal year 2018, under SFFAS No. 47 criteria Fannie Mae and Freddie Mac were owned or controlled by the federal government only as a result of (a) regulatory actions (such as organizations in receivership or conservatorship) or (b) other federal government intervention actions. Under the regulatory or other intervention actions, the relationship with the federal government was and is not expected to be permanent. These entities are classified as disclosure entities based on their characteristics as a whole. Accordingly, these entities are not consolidated into the financial statements of the government; however, the value of the investments in these entities, changes in value, and related activity with these entities are included in the consolidated financial statements. This treatment is consistent with how these entities were reported prior to fiscal year 2018 under SFFAC No. 2, *Entity and Display*.

Senior Preferred Stock Purchase Agreements

Under the SPSPAs, Treasury initially received from each GSE: 1) 1,000,000 shares of non-voting variable liquidation preference senior preferred stock with a liquidation preference value of \$1,000 per share and 2) a non-transferable warrant for the purchase, at a nominal cost, of 79.9 percent of common stock on a fully-diluted basis. The warrants expire on September 7, 2028. Under the amended SPSPAs, the quarterly dividend payment changed from a 10.0 percent per annum fixed rate dividend on the total liquidation preference (as discussed below) to an amount equivalent to the GSE's positive net worth above a capital reserve amount. The capital reserve amount, which was initially set at \$3.0 billion for calendar year 2013, declined by \$600 million at the beginning of each calendar year thereafter, and was scheduled to reach zero by calendar year 2018. On December 21, 2017, Treasury and the FHFA agreed to modify the SPSPAs between Treasury and the GSEs to increase the capital reserve amount for each GSE back to \$3 billion, effective with the December 2017 dividend payment. In exchange for the increase in the capital reserve, Treasury's liquidation preference in each GSE increased by \$3 billion on December 31, 2017. The GSEs will not pay a quarterly dividend if their positive net worth is below the required capital reserve threshold. Cash dividends of \$9.9 billion and \$25.3 billion were received during fiscal years ended September 30, 2018, and 2017, respectively.

The SPSPAs, which have no expiration date, require that Treasury will disburse funds to the GSEs if at the end of any quarter, the FHFA determines that the liabilities of either GSE exceed its assets. Draws from Treasury under the SPSPAs are designed to ensure that the GSEs maintain positive net worth, with a fixed maximum amount available to each GSE under this agreement established as of December 31, 2012 (refer to the "Contingent Liability to GSEs" section below and Note 18 —Contingencies). Draws against the funding commitment of the SPSPAs do not result in the issuance of additional shares of senior preferred stock; instead, it increases the liquidation preference of the initial 1,000,000 shares by the amount of the draw. The combined cumulative liquidation preference totaled \$199 billion and \$189 billion as of September 30, 2018 and 2017, respectively. Actual payments of \$4.0 billion were made to the GSEs for the fiscal year ended September 30, 2018. There were no payments to the GSEs for the fiscal year ended September 30, 2017.

Senior Preferred Stock and Warrants for Common Stock

In determining the fair value of the senior preferred stock and warrants for common stock, Treasury relied on the GSEs' public filings and press releases concerning their financial statements, as well as non-public, long-term financial forecasts, monthly summaries, quarterly credit supplements, independent research regarding preferred stock trading, independent research regarding the GSEs' common stock trading on the OTC Bulletin Board, discussions with each of the GSEs and FHFA, and other information pertinent to the valuations. Because the instruments are not publicly traded, there is no

comparable trading information available. The fair valuations rely on significant unobservable inputs that reflect assumptions about the expectations that market participants would use in pricing.

The fair value of the senior preferred stock considers the amount of forecasted dividend payments. The fair valuations assume that a hypothetical buyer would acquire the discounted dividend stream as of the transaction date. The fair value of the senior preferred stock increased as of September 30, 2018 when compared to September 30, 2017, reflecting higher forecasted GSE net income, mainly driven by the reduction in the U.S. corporate tax rate resulting from the December 22, 2017 enactment of the *Tax Cuts and Jobs Act* (P.L. 115-97), a lower discount rate driven by lower volatility among comparable companies, as well as a reduction in the market value of the GSEs' other equity securities that comprise their total equity value.

Factors impacting the fair value of the warrants include the nominal exercise price and the large number of potential exercise shares, the market trading of the common stock that underlies the warrants as of September 30, the principal market, and the market participants. Other factors impacting the fair value include, among other things, the holding period risk related directly to the assumption of the amount of time that it will take to sell the exercised shares without depressing the market. The fair value of the warrants decreased at the end of fiscal year 2018, when compared to 2017, primarily due to decreases in the market price of the underlying common stock of each GSE.

Contingent Liability to GSEs

As part of the annual process undertaken by Treasury, a series of long-term financial forecasts are prepared to assess, as of September 30, the likelihood and magnitude of future draws to be required by the GSEs under the SPSPAs within the forecast time horizon. Treasury used 25-year financial forecasts prepared through years 2043 and 2042 in assessing if a contingent liability was required as of September 30, 2018 and 2017, respectively. If future payments under the SPSPAs are deemed to be probable within the forecast horizon, and Treasury can reasonably estimate such payment, they will accrue a contingent liability to the GSEs to reflect the forecasted equity deficits of the GSEs. This accrued contingent liability will be undiscounted and will not take into account any of the offsetting dividends that could be received, as the dividends, if any, would be owed directly to the General Fund. Such recorded accruals will be adjusted in subsequent years as new information develops or circumstances change. If future payments are reasonably possible, they are disclosed but not recorded as an accrued contingent liability.

Based on the annual forecasts as of September 30, 2018 and 2017, Treasury estimated there was no probable future funding draws. As of September 30, 2018, it is reasonably possible that market volatility or non-recurring events—for instance, changes to accounting policies that impact credit loss provisions—could potentially cause the GSEs to generate quarterly losses and, therefore, result in future funding draws against the funding commitment. Due to challenges quantifying future market volatility or the timing, magnitude, and likelihood of non-recurring events, the total amount of this reasonably possible future funding liability could not be estimated as of September 30, 2018.

P.L. 115-97 caused each GSE to reduce the value of its deferred tax assets in the quarter in which the legislation was enacted. The reduction of the GSEs deferred tax assets resulted in \$4.0 billion in actual payments made to the GSEs to ensure they maintained positive net worth, which reduced the remaining funding commitment. At September 30, 2018 and 2017, the maximum remaining funding commitment to the GSEs for the remaining life of the SPSPAs was \$254.1 billion and \$258.1 billion, respectively. Subsequent funding draws will reduce the remaining commitments. Refer to Note 19—Commitments for a full description of other commitments and risks.

In assessing the need for an estimated contingent liability, Treasury relied on the GSEs' public filings and press releases concerning their financial statements, monthly summaries, and quarterly credit supplements, as well as non-public, long-term financial forecasts, the FHFA House Price Index, discussions with each of the GSEs and FHFA, and other information pertinent to the liability estimates. The forecasts prepared in assessing the need for an estimated contingent liability as of September 30, 2018 include three potential wind-down scenarios, with varying assumptions regarding the timing as to when the GSEs would cease new business activities, including purchasing mortgage loans and issuing new guaranteed mortgage-backed securities. The forecasts also assume a continued gradual wind-down of the retained portfolios (and corresponding net interest income) through 2018, as directed under the amended SPSPAs for each GSE to reduce the maximum balance of its retained mortgage portfolio by 15.0 percent per annum beginning December 31, 2013. The maximum balance of each GSE's retained mortgage portfolio was initially set at \$650 billion as of December 31, 2012, and the amended SPSPAs requires that each GSE reduce this maximum balance to \$250 billion by December 31, 2018.

Estimation Factors

Treasury's forecasts concerning the GSEs may differ from actual experience. Estimated senior preferred values and future draw amounts will depend on numerous factors that are difficult to predict including, but not limited to, changes in government policy with respect to the GSEs, the business cycle, inflation, home prices, unemployment rates, interest rates,

changes in housing preferences, home financing alternatives, availability of debt financing, market rates of guarantee fees, outcomes of loan refinancings and modifications, new housing programs, and other applicable factors.

Regulatory Environment

To date, Congress has not approved a plan to address the future of the GSEs, thus the GSEs continue to operate under the direction of their conservator, the FHFA, whose stated strategic goals for the GSEs are to: (1) maintain, in a safe and sound manner, foreclosure prevention activities and credit availability for new and refinanced mortgages to foster liquid, efficient, competitive, and resilient national housing finance markets; (2) reduce taxpayer risk through increasing the role of private capital in the mortgage market, and (3) build a new single-family securitization infrastructure for use by the GSEs and adaptable for the use by other participants in the secondary market in the future.

The *Temporary Payroll Tax Cut Continuation Act of 2011*(P.L. 112-78) was funded by an increase of ten basis points in the GSEs' guarantee fees (referred to as "the incremental fees") which began in April 2012 and is effective through October 1, 2021. The incremental fees are to be remitted to Treasury and not retained by the GSEs and, thus, do not affect the profitability of the GSEs. For fiscal years 2018 and 2017, the GSEs remitted to Treasury the incremental fees totaling \$3.6 billion and \$3.2 billion, respectively.

As of September 30, 2018, and 2017, GSEs investments consisted of the following:

(In billions of dollars)	Gross Investments	Cumulative Valuation Gain/(Loss)	Fair Value
		, , , , , , , , , , , , , , , , ,	
Fannie Mae senior preferred stock	123.7	(64.5)	59.2
Freddie Mac senior preferred stock	75.4	(31.2)	44.2
Fannie Mae warrants common stock	3.1	3.2	6.3
Freddie Mac warrants common stock	2.3	1.2	3.5
Total investments in GSEs	204.5	(91.3)	113.2

Investments in GSEs as of September 30, 2017

(In billions of dollars)	Gross Investments	Cumulative Valuation Gain/(Loss)	Fair Value
	· · ·	·· · · · ·	
Fannie Mae senior preferred stock	117.0	(74.5)	42.5
Freddie Mac senior preferred stock	72.1	(41.0)	31.1
Fannie Mae warrants common stock	3.1	9.2	12.3
Freddie Mac warrants common stock	2.3	4.4	6.7
Total investments in GSEs	194.5	(101.9)	92.6
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