

11 December 2025

Overview

Indonesia is currently navigating a range of complex economic and political challenges while focusing on disaster recovery and regulatory reforms. The economy faces mixed expectations, with slow growth projections and fiscal pressures, particularly regarding state-owned enterprises (SOEs) and the broader industrial strategy. Efforts to secure international trade agreements are faltering as the US deals with Indonesia's reneged commitments, while the government pushes forward with policies aimed at enhancing financial inclusivity and boosting food security. At the same time, disaster relief efforts for Sumatra's severe floods and landslides are straining the national budget, with recovery costs expected to exceed IDR 50 trillion. Politically, the country is grappling with debates over corporate accountability, human rights frameworks, and electoral reforms. Meanwhile, the digital sector is seeing increasing calls for fairer royalty governance as Indonesia seeks a more prominent role on the global stage. Regionally, environmental disasters like the eruption of Mount Semeru and ongoing power shortages in Aceh reflect the country's vulnerability to natural risks. As Indonesia progresses through 2026, it will need to balance economic reform, political recalibration, and disaster resilience to maintain stability.

Key Comments

Economy, Business & Finance

US Trade Deal with Indonesia at Risk of Collapse, US Official Says: A US official warned that the trade deal signed with Indonesia in July is at risk due to Jakarta's backtracking on several commitments made during negotiations. The official did not specify the exact issues but expressed concern that these changes could unravel the agreement. The deal had been anticipated as a major step toward stronger economic ties between the two nations.

BI Records Higher Job Availability Index in November 2025: Bank Indonesia's Job Availability Index (IKLK) increased to 103.7 in November, indicating rising consumer confidence in job availability. This is the first time the index has been in the optimistic zone since May 2025, signaling an improving job market outlook. The increase is seen as a positive sign for Indonesia's economic recovery amidst global uncertainties.

Indonesia to Open Bank Branches in Saudi Arabia, Qatar, and UAE: Indonesia plans to expand its financial presence in the Middle East by opening bank branches in Saudi Arabia, Qatar, and the UAE. Deputy Foreign Minister Anis Matta revealed the government's push to establish these branches, aimed at strengthening financial ties with key regional markets. The move is expected to enhance Indonesia's economic footprint in the Middle East.

Indonesia Sets Aside IDR 23.7 Trillion for Food Barns in 2026 State Budget: The Indonesian government has allocated IDR 210.4 trillion in the 2026 State Budget for food security initiatives, including the development of food barns. This allocation represents a significant increase from last year's food security funding, highlighting the government's commitment to addressing food resilience. The programs will focus on land optimization and expanding paddy cultivation across 550 hectares.

Sumatra Disaster Recovery Budget Exceeds IDR 50 Trillion: The government estimates that recovery efforts in Sumatra, which have been devastated by floods and landslides, will require more than IDR 50 trillion. This preliminary figure includes funds for rebuilding infrastructure, such as roads and bridges, as well as addressing the region's economic and social impacts. The full extent of the recovery costs is still being assessed.

Govt to Tighten Export-Receipt Rules, Curb Lingering Loopholes: Starting in 2026, the Indonesian government will tighten rules requiring natural resource exporters to deposit all export receipts in state-owned banks. The new regulation is designed to close loopholes that have allowed funds to leak offshore, thus improving financial monitoring. However, experts caution that this could place additional pressure on liquidity and may deter investment.

Politics & National Affairs

Activists Push to Revoke Corporate Operating Licenses Over Sumatra's Eco Damage: Environmental activists are calling for the revocation of corporate operating licenses for companies that contributed to environmental degradation in Sumatra, exacerbating the recent deadly floods. Wahana Lingkungan Hidup Indonesia (WALHI) argues that stronger actions are needed to hold companies accountable for their role in environmental destruction. The government has yet to respond to these calls.



11 December 2025

969 Dead in Sumatra Floods and Landslides, Indonesia's BNPB Reports: The National Disaster Management Agency (BNPB) has confirmed that the death toll from Sumatra's floods and landslides has risen to 969. The affected provinces—Aceh, North Sumatra, and West Sumatra—have seen widespread destruction, and the government continues to deploy emergency response teams. Recovery efforts are ongoing, with substantial government assistance directed to the affected regions.

Disaster Fundraising Should Obtain Government Permit First: The Indonesian government has issued guidelines stating that all fundraising efforts for flood victims in Sumatra must obtain prior approval. This regulation is aimed at ensuring the legitimacy of fundraising campaigns and protecting citizens from potential scams. The move follows high-profile charity campaigns from celebrities and influencers.

Digital Economy, Media & Telcos

Australia Social Media Ban: Children Feel Isolated, Ignored: Australia has implemented a groundbreaking social media ban for children under 16, restricting access to major platforms such as Facebook, Instagram, and TikTok. The move has sparked controversy, with critics arguing that it leaves young people feeling isolated. The Australian government is relying on social media companies to enforce the ban and avoid potential penalties.

Oil-Rich UAE Turns to AI to Grease Economy: The UAE is betting on artificial intelligence to drive economic transformation, with plans for a massive AI campus in Abu Dhabi. The AI campus will host data centers and is expected to play a key role in the country's diversification strategy. By leveraging AI, the UAE aims to reduce its dependence on oil revenues and position itself as a global tech hub.

Regional Issues

Indonesia Considers Visa-Free Entry for Japanese Travelers: Indonesia is considering granting visa-free entry to Japanese nationals in a move aimed at fostering stronger bilateral relations. The proposal, which will soon be discussed by the government, is part of broader efforts to attract more tourists from Japan. If approved, this policy change could boost tourism and cultural exchange between the two countries.

Over 1,200 Villages in Disaster-Hit Aceh Remain Without Electricity: Over 1,200 villages in Aceh are still without electricity due to damage caused by the recent floods and landslides. PLN is working to restore power, but access to the damaged networks remains challenging. The restoration efforts are being supported by the Indonesian military to expedite recovery in these isolated areas.

Mt. Semeru Erupts, Dozens of Homes Buried by Rain Lahar, Hundreds Flee to Hills: Mount Semeru in East Java erupted again, sending an ash column 1,000 meters above its summit and causing molten lava flows. The eruption has buried several homes under thick mud, and hundreds of residents have fled to nearby hills. Authorities are monitoring the situation closely and have issued safety warnings for the surrounding areas.

Outlook

Indonesia's outlook for 2026 hinges on navigating a delicate balance between fiscal constraints, disaster recovery, and economic reform. As global trade dynamics continue to shift, Indonesia's reliance on external markets remains a key vulnerability, especially as trade agreements with the US are at risk of collapse. Domestic economic resilience will be tested by the ongoing disaster recovery efforts in Sumatra, with the government earmarking significant resources to rebuild infrastructure and support affected communities. The tightening of export-receipt rules and efforts to curb illegal imports will be crucial for strengthening financial oversight but may create short-term challenges for exporters. Politically, Indonesia faces critical debates on corporate responsibility and electoral reform, with potential long-term implications for governance and democratic processes. On the digital front, Indonesia's push for fair digital royalty reform at the global level signals an increasing focus on the global digital economy. Meanwhile, regional events, such as the eruption of Mount Semeru and widespread flooding, emphasize the need for stronger environmental preparedness and response systems. Indonesia's ability to manage these internal and external pressures, while pursuing long-term economic reforms, will be key to its growth trajectory and political stability in the coming vears.



11 December 2025

Market Movement

Jakarta Composite Index (JCI) edged higher on Thursday, closing 0.51% up at 8,700.9, driven by strength in infrastructure and commodity-related stocks. The Indonesia Sharia Stock Index (ISSI) outperformed, rising 1.19% to 313.0, as investors favored select cyclical and speculative stocks. Foreign investors booked a net sell of IDR 126.3 billion in the regular market but balanced this with a net buy of IDR 83 billion in the negotiated market, indicating a preference for larger, high-cap stocks.

Sector performance was mixed, with infrastructure (IDXINFRA) leading the day's gains, reflecting continued investor enthusiasm in the sector, while financials (IDXFIN) lagged under pressure from profit-taking in banking stocks. MORA (+19.8%), BUMI (+19.9%), and BRPT (+6.3%) emerged as the top gainers, supported by strong flows into resource and infrastructure names. In contrast, COIN (-11.3%), BBRI (-0.5%), and APIC (-10.9%) dragged the index lower, reflecting weakness in fintech and consumer sectors.

Foreign inflows were concentrated in BUMI, CBDK, and BMRI, while outflows were seen in RAJA, COIN, and BBRI, reflecting a shift away from financials and tech stocks. BUMI and MORA stood out with notable price movements, while COIN saw significant selling pressure after a period of strong rally.

Overall, the market held steady with positive sentiment across commodities and infrastructure, despite the broader selloff in tech and banking stocks. The JCI remained supported by robust demand for resource-linked and infrastructure stocks, with foreign flows helping to cushion the pullbacks in financials.

Fixed Income

On Wednesday, 10 December 2025, the Indonesian government bond market moved slightly higher, with the Indonesia Composite Bond Index (ICBI) rising 4 bps to 11.50. Yield movements in the Fixed Rate (FR) series were mixed: FR0103 decreased 2.8 bps to 6.166%, FR0106 dropped 1.1 bps to 6.448%, FR0104 rose 2.4 bps to 5.653%, and FR0107 increased 0.2 bps to 6.554%. In the SBSN segment, yields moved mixed with PBS030 down sharply by 8.5 bps to 5.098%, PBS003 up 0.9 bps to 5.034%, PBS034 up 0.7 bps to 6.357%, and PBS038 down slightly by 0.1 bps to 6.661%. The rupiah weakened 12 points to IDR 16,688/USD, while the UST 10-year yield rose to 4.207%.

Market liquidity weakened, with the SUN trading volume declining sharply by 32.80% to IDR 27.58 trillion (from IDR 41.04 trillion on Tuesday) and transaction frequency down 6.84% to 2,888 trades from 3,100 trades previously, reflecting profittaking and a significant drop in trading activity mid-week. Nonbenchmark series such as FR0101, FR0078, and FR0100 were traded at yields of 5.491%, 5.563%, and 6.179%, respectively. In the corporate bond segment, LPPI04BCN1 offered a yield of 7.415%, POLI01BSL at 6.232%, while WISL03B was at 4.971%.

US 10 Year Treasury

The yield on the 10-year US Treasury note remained near 4.2% on Wednesday, reaching its highest level in three months as markets prepared for the Federal Open Market Committee's (FOMC) policy decision later in the day. While a third consecutive 25 basis point rate cut is widely expected, attention is focused on the Fed's updated projections and guidance for 2026. Traders have become less certain that the easing cycle will extend into 2026, given still-elevated inflation and ongoing divisions among policymakers. September's headline PCE inflation rose to 2.8%, nearly a full percentage point above the Fed's target. In its September projections, the Fed anticipated only one rate cut in 2026, while markets are now pricing in roughly two cuts next year. Concerns about the independence of the next Fed Chair, who will replace Jerome Powell in May, have added to uncertainty and weighed on the bond market. Meanwhile, the 30-year Treasury yield rose above 4.8%, its highest level since early September.



11 December 2025

Outlook

The slight upward movement in the ICBI reflects investor caution amid mixed technical indicators. While yields on some government bonds saw modest improvements, the overall market remains subdued, with profit-taking and reduced volume in the middle of the week. This suggests that investor sentiment is balancing between opportunities in a higher UST yield environment and domestic yield adjustments. Going forward, the bond market is expected to see range-bound yields with a focus on potential policy moves and economic data releases. The fluctuating rupiah and rising US Treasury yields will continue to exert pressure on local bonds, but the market's overall direction will depend on upcoming fiscal and monetary developments.

Strategy

Based on the RRG chart, longer tenors (≥10 years) remain in the *leading* quadrant, indicating stronger relative performance against the 10-year benchmark (GIDN10YR). Meanwhile, most shorter tenors (below 10 years) are positioned in the *lagging* quadrant, although the 7-year tenor continues to show improving momentum and moves closer to the *leading* area. The 5-year and 6-year tenors also maintain their positive momentum in the *improving* quadrant. Overall, most short-term tenors are still showing strengthening momentum, while longer tenors are starting to exhibit signs of momentum weakening relative to the 10-year benchmark.

Given the market dynamics, we recommend the following:

INDOGB: FR87, FR85, FR83, FR81, FR52

INDOIS: PBS37, PBS29, PBS24



11 December 2025

Macro Forecasts

Macro	2024A	2025F	2026F
GDP (% YoY)	5.02	5.01	5.10
Inflation (% YoY)	1.57	2.70	3.00
Current Account Balance (% GDP)	-0.9	-1.4	-1.9
Fiscal Balance (% to GDP)	-2.29	-2.85	-2.90
BI 7DRRR (%)	6.00	4.50	4.00
10Y. Government Bond Yield (%)	7.00	6.28	6.55
Exchange Rate (USD/IDR)	16,162	16,750	16,850

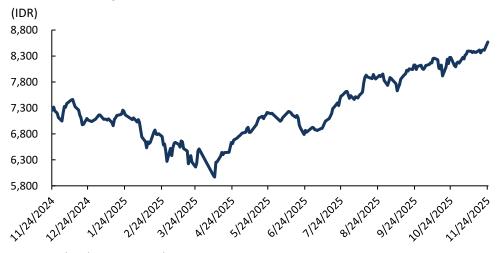
Source: SSI Research

Currencies

Currency Pair	Index, Last	Currency Pair	Index, Last
AUD / USD	0.6	AUD / IDR	11,091
CNY / USD	7.0	CNY / IDR	2,364
EUR / USD	1.1	EUR / IDR	19,412
GBP /USD	1.3	GBP / IDR	22,228
HKD / USD	7.7	HKD / IDR	2,144
JPY / USD	157	JPY / IDR	107
MYR /USD	4.1	MYR / IDR	4,053
NZD / USD	0.5	NZD / IDR	9,653
SAR / USD	3.7	SAR / IDR	4,449
SGD / USD	1.3	SGD / IDR	12,883
		USD / IDR	16,700

Source: STAR, SSI Research

JCI Chart Intraday



Source: Bloomberg, SSI Research



11 December 2025

Foreign Flow: IDR 126.3 bn Outflow in Regular Market

Stock	% TVAL	Last	% CHG	% MTD	% YTD	NVAL (IDR bn)
RAJA	0.3	6,425	-6.5	-2.6	136.2	-223
COIN	0.6	4,090	-11.2	14.5	3,990	-161
BBRI	1.0	3,660	-0.5	-0.5	-10.2	-144
EXCL	0.5	3,710	7.8	28.3	64.8	-119
DEWA	0.8	496	-1.7	14.8	346.8	-97
BKSL	0.2	170	-2.8	11.1	139.4	-68
ENRG	0.3	1,415	1.8	43.6	515.2	-55
PTRO	0.1	10,025	-3.6	0.2	262.9	-43
CUAN	0.1	2,540	-2.6	-5.2	128.4	-42
INKP	0.0	7,900	-3.6	-9.9	16.1	-36

Source: STAR, SSI Research

Index Stock Mover Summary

Stock	% CHG	JCI (+)	M.CAP (IDR tn)	Stock	% CHG	JCI (+)	M.CAP (IDR tn)
MORA	19.8	49.31	332	TPIA	-1.7	-9.69	610
BRPT	6.2	18.48	349	CUAN	-2.6	-7.05	286
BUMI	19.8	17.98	121	COIN	-11.2	-6.85	60
BMRI	1.6	6.63	459	IMPC	-1.8	-3.44	201
AMMN	1.6	6.50	457	PTRO	-3.6	-3.39	101
EMAS	10.9	6.38	72	PANI	-1.4	-3.03	227
TLKM	1.9	6.21	361	BBCA	-0.3	-2.73	985
BREN	0.5	5.99	1,288	BBRI	-0.5	-2.69	549
EMTK	6.3	4.68	87	GIAA	-5.9	-2.54	45
EXCL	7.8	4.40	68	MLPT	-2.0	-2.48	133

Source: Bloomberg, STAR, SSI Research

Daily Sector Summary

Daily Sector 3	allillal y					
SECTOR	TVAL	%TVAL FNVAL	FBVAL	DBVAL	FSVAL	DSVAL
IDXBASIC	4.2T	12.4 141.3B	955.4B	3.2T	814.0B	3.4T
IDXCYCLIC	1.1T	3.2 96.7B	261.9B	844.2B	165.1B	941.0B
IDXINDUST	1.7T	5.0 59.2B	335.9B	1.3T	276.6B	1.4T
IDXENERGY	13.4T	39.6 48.5B	2.9T	10.4T	2.9T	10.5T
IDXTECHNO	2.3T	6.8 <mark>19.1B</mark>	538.9B	1.8T	519.8B	1.8T
IDXPROPERT	1.5T	4.4 14.4B	253.2B	1.3T	238.7B	1.3T
IDXTRANS	250.1B	0.7 4.2 B	24.1B	226.0B	19.8B	230.2B
COMPOSITE	33.8T	100.0	8.1T	25.6T	8.1T	25.6T
IDXHEALTH	285.1B	0.8 -11.5B	89.3B	195.7B	100.9B	184.1B
IDXNONCYC	1.5T	4.4 -38.5B	403.4B	1.1T	442.0B	1.0T
IDXINFRA	2.2T	6.5 -148.4B	532.5B	1.7T	681.0B	1.6T
IDXFINANCE	5.0T	14.7 -228.4B	1.7T	3.2T	2.0T	3.0T

Source: Bloomberg, STAR, SSI Research



11 December 2025

INDOGB Bonds Valuation

11 F895 8/19/2002 8/15/2008 2.68 6.4% 102.67 5.3% 5.6% 101.87 132.71) Expensive 2.48 2.89 1/27/2023 1/15/2029 3.10 6.4% 99.75 6.5% 5.6% 102.14 834.89 Cheap 2.81 13 FR71 9/12/2013 3/15/2029 3.27 9.0% 110.31 5.5% 5.7% 109.86 (15.81) Expensive 2.24 14 101 11/2/2023 4/15/2029 3.25 6.9% 104.19 5.5% 5.7% 109.86 (15.81) Expensive 3.00 15 FR78 9/12/2013 4/15/2029 3.35 6.9% 104.19 5.5% 5.7% 107.97 (11.57) Expensive 3.00 16 104 8/22/2024 7/15/2029 4.33 8.3% 108.32 5.5% 5.5% 5.7% 107.97 (11.57) Expensive 3.03 16 104 8/22/2024 7/15/2020 4.60 6.5% 103.45 5.6% 5.8% 102.95 (12.54) Expensive 3.03 16 104 8/22/2024 7/15/2020 4.60 6.5% 103.45 5.6% 5.8% 102.95 (12.54) Expensive 3.03 18 FR82 8/1/2019 9/15/2030 4.77 7.0% 105.41 5.7% 5.88% 110.295 (12.54) Expensive 3.03 18 FR82 8/1/2019 9/15/2030 4.77 7.0% 105.41 5.7% 5.88% 105.04 (9.37) Expensive 4.04 19.75 (14.75) Expensive 4.05 19.75 (14.75) Expensive 5.24 19.75 (14.75) Expensive 5.25 (14.75) Expensive	No.	Series	Issue Date	Maturity Date	Tenure (Year)	Coupon Rate	Actual Price	Yield to Maturity	Yield Curve	Valuation Price	Spread to YC (bps)	Recommendation	Duration
3 FR72 5/18/2006 9/15/2006 0.77 12.0% 105.36 4.7% 5.6% 104.70 (96.40) Expensive 0.73 4.78 FR56 9/17/2010 9/15/2006 0.77 8.4% 102.00 4.8% 5.6% 101.00 (2.8) Expensive 0.74 6.78 FR56 9/17/2011 5/15/2007 1.35 5.1% 100.09 5.0% 5.6% 9.39 (55.70) Expensive 1.37 6.78 FR56 9/15/2011 5/15/2007 1.36 5.0% 10.06 5.6% 10.09 (63.18) Expensive 1.37 7.78 FR22 1/25/2007 7/15/2002 2.10 5.6% 10.06 5.6% 10.00 (63.18) Expensive 1.37 7.78 FR22 1/25/2007 7/15/2002 2.10 5.6% 10.06 5.6% 10.00 (63.18) Expensive 1.38 FR59 3/4/2002 1/15/2002 2.10 5.6% 10.06 5.6% 10.00 (1.34.31) Expensive 1.39 FR57 8/15/2002 1.26 6.6% 10.08 5.6% 10.00 (1.34.31) Expensive 1.39 FR59 3/4/2002 1/15/2002 2.10 5.6% 10.06 5.6% 10.00 (1.34.31) Expensive 1.39 FR59 3/4/2002 1/15/2002 2.10 5.6% 10.06 10.08 5.5% 5.6% 10.00 (1.34.31) Expensive 1.39 FR59 3/4/2002 1/15/2002 1.26 6.7% 10.05 7.5% 5.6% 10.01 17 (33.30) The Expensive 1.39 FR59 3/4/2002 1/15/2002 1.26 6.7% 10.05 7.5% 5.6% 10.01 17 (33.30) The Expensive 2.27 1.26 FR59 1/27/2002 1/15/2002 1.26 6.7% 10.05 7.5% 5.6% 10.01 17 (33.30) The Expensive 2.28 1.26 FR59 1/27/2002 1/15/2009 3.30 6.7% 10.05 7.5% 5.6% 5.6% 10.01 17 (33.30) The Expensive 2.24 1.26 FR59 1/27/2002 1/15/2009 3.35 6.7% 10.01 13.5 5.5% 5.6% 10.01 17 (33.30) The Expensive 2.24 1.26 FR59 1/27/2002 1/15/2009 3.35 6.9% 10.01 10.09 5.5% 5.7% 10.05 67 (1.15) Expensive 3.00 15 FR79 9/27/2018 5/15/2009 3.43 8.3% 10.05 2.5 5.6% 5.6% 5.6% 10.05 6.1% 10.05 9/15/2000 1.15/2000 3.25 5.6% 10.05 9/15/2000 1.15/2000 3.25 5.6% 10.05 9/15/2000 3.25 5.6% 10	1	FR84	5/4/2020	2/15/2026	0.19	7.3%	100.63	3.6%	5.7%	100.28	(214.90)	Expensive	0.18
4 PR56 9/23/2010 9/15/2021 415/2026 0.77 8.4% 102.60 4.8% 5.6% 102.02 (82.79) Expensive 1.20 6 PR99 9/15/2021 415/2027 1.5 5.1% 100.09 5.0% 5.6% 107.09 (63.18) Expensive 1.37 7 FR42 1/25/2007 7/15/2027 1.60 10.3% 107.95 5.0% 5.6% 101.90 (63.18) Expensive 1.48 8.8 FR94 3/4/2022 1/15/2028 2.10 5.6% 100.68 5.3% 5.6% 100.10 13.4339 Expensive 1.48 8.8 FR94 3/4/2022 1/15/2028 2.10 5.6% 100.68 5.3% 5.6% 100.01 13.4339 Expensive 1.59 10.00 10	2	FR86	8/13/2020	4/15/2026	0.35	5.5%	100.20	4.8%	5.7%	99.93	(86.31)	Expensive	0.35
5 FR00 7/k/2021 4/15/2007 1.35 5.1% 100.09 5.0% 5.6% 99.39 (55.70) Expensive 1.37 6 FRS9 9/17/2011 5/15/2007 1.00 10.3% 107.95 5.0% 5.6% 101.90 (63.83) Expensive 1.37 7 FR42 1/25/2007 2/15/2008 2.10 5.6% 100.068 5.3% 5.6% 100.01 (34.37) Expensive 1.38 FR03 3/4/2002 1/15/2008 2.10 1.0% 10.82 5.2% 5.6% 108.94 (43.11) Expensive 1.98 9 FR47 8/30/2007 2/15/2008 2.19 10.0% 10.82 5.2% 5.6% 108.94 (43.11) Expensive 1.99 10.0% 10.82 5.2% 5.6% 10.01 7 (33.30) 10 FR64 8/13/2012 5/15/2008 2.43 6.1% 10.05 7 5.3% 5.6% 10.17 (33.30) 10 Expensive 2.27 11 FR59 8/15/2002 3.15 20.08 2.49 6.1% 10.01 10.82 5.2% 5.6% 10.17 (33.30) 11 Expensive 2.27 11 Expensive 2.48 10.17 (17.20) 11/27/2003 1/15/2009 3.10 6.4% 99.75 6.3% 5.6% 10.18 48.89 (heap 2.81 13.18 FR71 9/17/2013 3/15/2009 3.35 6.9% 10.10 15.5% 5.7% 100.86 (1.81 Expensive 2.44 14 101 11/27/2003 4/15/2009 3.35 6.9% 10.10 15.5% 5.7% 10.86 (1.81 Expensive 2.44 14 101 11/27/2003 4/15/2009 3.35 6.9% 10.04 19.55% 5.7% 10.86 (1.17 Expensive 3.00 15.17 FR52 8/17/2009 9/15/2009 4.60 6.5% 10.05 5.6% 5.6% 5.8% 10.02 9 (1.15 9) Expensive 3.00 15.17 FR52 8/17/2009 9/15/2000 4.60 6.5% 10.05 5.6% 5.6% 5.8% 10.02 9 (1.15 9) Expensive 3.09 15.17 FR52 8/17/2009 9/15/2000 4.60 6.5% 10.05 45 5.6% 5.8% 10.00 9 (1.15 9) Expensive 3.09 15.17 FR52 8/17/2009 9/15/2000 4.77 7.0% 10.54 5.5% 5.8% 10.00 9 (1.25 9) (1.25 9) Expensive 3.89 15.78 8/17/2000 9/15/2000 4.77 7.0% 10.54 5.7% 5.8% 10.00 9 (1.05 9) (1.25 9) Expensive 4.44 4.00 9/15/2000 2/15/2001 5.15 90.59 5.5% 10.05 2.5% 5.8% 10.00 9 (1.05 9) Expensive 4.44 4.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.15 90.59 5.3% 10.00 9/15/2001 5.1	3	FR37	5/18/2006	9/15/2026	0.77	12.0%	105.36	4.7%	5.6%	104.70	(96.40)	Expensive	0.73
6 PRS9 9/15/2011 5/15/2007 1/15/2007 1.48 7.0% 102.76 5.0% 5.6% 101.90 (63.18) Expensive 1.48 8. PRS9 43/4/2002 1/15/2008 2.10 5.6% 100.68 5.3% 5.6% 100.01 (34.39) Expensive 1.99 100 PR64 8/13/2007 1/15/2008 2.19 10.0% 10.9% 100.88 5.3% 5.6% 100.01 (34.39) Expensive 1.99 100 PR64 8/13/2007 2/15/2008 2.49 6.1% 101.9% 5.2% 5.6% 101.01 (33.30) Expensive 2.27 11 PRS5 8/19/2022 3/15/2009 3.10 6.1% 101.91 5.3% 5.6% 101.17 (33.30) Expensive 2.27 11 PRS5 8/19/2022 3/15/2009 3.10 6.1% 101.91 5.3% 5.6% 101.17 (33.30) Expensive 2.27 11 PRS5 8/19/2022 3/15/2009 3.10 6.1% 101.91 5.3% 5.6% 101.87 (32.71) Expensive 2.27 11 PRS5 8/19/2022 3/15/2009 3.10 6.1% 101.91 5.3% 5.6% 101.87 (32.71) Expensive 2.28 14 101 11/2/2013 3/15/2009 3.17 9.0% 110.31 5.5% 5.6% 101.87 (32.71) Expensive 3.00 15 PRS5 9/17/2013 1/15/2003 3.43 8.3% 108.32 5.5% 5.7% 109.86 (15.81) Expensive 3.00 15 PRS5 9/17/2013 5/15/2003 4.68 10.5% 101.34 5.5% 5.7% 109.86 (15.81) Expensive 3.00 15 PRS5 8/19/2004 7/15/2030 4.68 10.5% 101.34 5.5% 5.8% 102.95 (15.54) Expensive 3.09 17 PRS2 8/20/2009 8/15/2030 4.77 7.0% 103.45 5.6% 5.8% 103.03 (5.49) Expensive 3.83 18 PRS2 8/12/2009 9/15/2030 4.77 7.0% 103.61 5.7% 5.8% 103.03 (5.49) Expensive 4.06 PRS5 8/12/2009 9/15/2031 5.59 6.5% 102.26 5.8% 5.8% 103.03 (5.49) Expensive 4.06 PRS5 8/12/2009 4/15/2031 5.59 6.5% 102.26 5.8% 5.8% 103.03 (5.49) Expensive 4.06 PRS5 8/12/2000 4/15/2031 5.99 6.5% 103.26 5.8% 5.8% 103.03 (5.49) Expensive 4.06 PRS5 8/12/2000 4/15/2031 5.99 6.5% 102.26 5.8% 5.8% 5.8% 103.03 (5.49) Expensive 4.04 PRS5 8/12/2000 4/15/2031 5.99 6.5% 102.26 5.8% 5.8% 5.8% 103.03 (5.49) Expensive 4.04 PRS5 8/12/2000 4/15/2031 5.99 6.5% 102.26 5.8% 5.8% 5.8% 103.03 (5.49) Expensive 4.04 PRS5 8/12/2009 9/15/2031 5.99 6.5% 102.26 5.8% 5.8% 5.8% 103.03 (5.49) Expensive 4.04 PRS5 8/12/2009 4/15/2031 5.48 8.8% 113.38 5.8% 5.8% 103.03 (5.49) Expensive 4.05 6.28 6.28 6.28 6.28 6.28 6.28 6.28 6.28	4	FR56	9/23/2010	9/15/2026	0.77	8.4%	102.60	4.8%	5.6%	102.02	(82.79)	Expensive	0.74
7 FR22 1/25/2007 7/15/2028 2.10 1.00 10.3% 107.95 5.0% 5.0% 107.02 (40.85) Expensive 1.48 FR94 3/47/002 1/15/2028 2.19 10.0% 109.82 5.2% 5.6% 100.01 (43.39) Expensive 1.99 FR74 8/30/2007 2/15/2028 2.19 10.0% 109.82 5.2% 5.6% 100.01 (43.11) Expensive 1.99 FR74 8/30/2007 2/15/2028 2.19 10.0% 109.82 5.2% 5.6% 100.01 (43.11) Expensive 1.29 110 FR95 8/19/2022 8/15/2028 2.68 6.4% 101.91 5.3% 5.6% 100.17 (33.30) Expensive 2.27 111 FR95 8/19/2022 8/15/2028 2.68 6.4% 101.97 5.3% 5.6% 100.187 (33.20) Expensive 2.27 111 FR95 8/19/2022 8/15/2029 3.10 6.6% 99.75 6.5% 5.0% 100.14 84.99 Cheap 2.51 12 FR99 1/27/2013 3/15/2039 3.27 9.0% 101.03 1 5.5% 5.0% 100.14 84.99 Cheap 2.51 14 101 11/27/2023 4/15/2039 3.35 6.5% 101.99 5.5% 5.7% 103.67 (17.58) Expensive 3.00 11 11/27/2023 4/15/2029 3.35 6.5% 104.19 5.5% 5.7% 103.67 (17.58) Expensive 3.00 165 104 8/22/2024 7/15/2039 4.80 10.5% 105.95 5.5% 5.7% 103.67 (17.58) Expensive 3.00 165 104 8/22/2024 7/15/2030 4.60 6.5% 103.45 5.6% 5.8% 102.95 (12.55) Expensive 3.09 17.5 FR93 8/1/2009 8/15/2030 4.60 6.5% 103.45 5.6% 5.8% 102.95 (12.56) Expensive 3.99 17.5 FR93 8/1/2009 9/15/2031 5.35 5.6% 103.45 5.6% 5.8% 102.95 (12.56) Expensive 4.05 12.7 FR92 8/1/2009 8/15/2031 5.35 5.6% 103.26 5.8% 5.8% 103.04 (19.37) Expensive 4.05 12.7 FR93 8/1/2000 4/15/2031 5.35 5.8% 103.26 5.8% 5.8% 103.39 (10.37) Expensive 4.05 12.7 FR93 8/1/2000 4/15/2031 5.35 5.8% 103.26 5.8% 5.8% 103.39 (0.36) Expensive 4.44 12.2 FR93 8/1/2015 5/15/2031 5.43 8.8% 113.38 5.8% 5.8% 113.39 (0.36) Expensive 4.44 12.2 FR93 8/1/2015 5/15/2031 5.43 8.8% 113.38 5.8% 5.8% 113.39 (0.36) Expensive 4.44 12.2 FR93 8/1/2016 8/15/2031 5.43 8.8% 113.38 5.8% 5.8% 113.39 (0.36) Expensive 4.44 12.2 FR93 8/1/2015 5/15/2031 5.43 8.8% 113.38 5.8% 5.8% 113.39 (0.36) Expensive 4.44 12.2 FR93 8/1/2015 5/15/2031 5.43 8.8% 113.38 5.8% 5.8% 113.39 (0.36) Expensive 4.44 12.2 FR93 8/1/2015 5/15/2031 5.43 8.8% 113.38 5.8% 5.8% 113.39 (0.36) Expensive 4.44 12.2 FR93 8/1/2010 1/15/2031 5.43 8.8% 113.38 5.8% 5.8% 110.00 10.00 10.00 10.00 10.00 10.00 10.00	5	FR90	7/8/2021	4/15/2027	1.35	5.1%	100.09	5.0%	5.6%	99.39	(55.70)	Expensive	1.30
8 FR64 3/4/2002 1/15/2028 2.19 5.5% 100.68 5.3% 5.6% 100.11 (34.39) Expensive 1.98 9 FR47 8/3/2012 5/15/2028 2.19 10.0% 109.82 5.2% 5.6% 100.14 (34.11) Expensive 1.99 10 FR64 8/13/2012 5/15/2028 2.43 6.1% 101.91 5.3% 5.6% 101.17 (32.71) Expensive 2.27 2.27 11 FR95 8/13/2022 4/15/2029 3.10 6.4% 99.75 6.5% 5.6% 101.187 (32.71) Expensive 2.48 13 FR71 9/12/2013 3/15/2029 3.10 6.4% 99.75 6.5% 5.6% 100.187 (32.71) Expensive 2.48 13 FR71 9/12/2013 3/15/2029 3.27 9.0% 10.10.31 5.5% 5.6% 100.84 10.214 8.499 Cheap 2.48 13 FR71 9/12/2013 3/15/2029 3.27 9.0% 10.10.19 5.5% 5.5% 10.79 10.36 (15.81) Expensive 2.48 14 101 11/2/2013 4/15/2019 3.35 6.9% 101.19 5.5% 5.5% 5.5% 10.79 10.36 (15.81) Expensive 3.04 15 FR78 9/27/2018 5/15/2029 3.43 8.3% 108.32 5.5% 5.5% 10.79 70 (11.57) Expensive 3.03 15 FR78 9/27/2018 5/15/2029 4.68 10.55% 10.84 5.6% 5.8% 10.95 10.295 10.259 Expensive 3.03 18 FR82 8/12/2004 7/15/2030 4.68 10.5% 10.84 5.6% 5.8% 10.95 10.295 10.259 Expensive 3.83 18 FR82 8/12/2029 9/15/2030 4.77 7.0% 10.54 5.7% 5.8% 119.18 (8.06 Expensive 3.83 18 FR82 8/12/2029 9/15/2030 4.77 7.0% 10.54 5.7% 5.8% 10.50 4 (9.37) Expensive 4.05 19 FR87 8/13/2020 11/15/2031 5.19 6.5% 103.25 5.8% 5.8% 108.72 (10.97) Expensive 4.05 19 FR87 8/13/2020 7/15/2031 5.19 6.5% 103.25 5.8% 5.8% 108.72 (10.97) Expensive 4.44 18 FR82 8/12/2010 7/15/2031 5.35 7.8% 103.22 5.7% 5.8% 108.72 (10.97) Expensive 4.44 18 FR83 8/12/2010 7/15/2031 5.36 0.95% 113.38 5.8% 5.8% 108.72 (10.97) Expensive 4.44 18 FR83 8/12/2010 7/15/2031 5.60 9.95% 117.50 5.8% 5.8% 10.07 (10.97) Expensive 4.44 18 FR83 8/12/2010 7/15/2031 5.60 9.95% 117.50 5.8% 5.8% 10.07 (10.37) Expensive 4.44 18 FR83 8/12/2010 7/15/2031 5.60 9.95% 117.50 5.8% 5.8% 10.07 (10.37) Expensive 4.44 18 FR83 8/12/2011 6/15/2032 6.52 8.3% 111.92 6.0% 5.9% 117.20 (6.37) Expensive 4.44 18 FR83 8/12/2011 6/15/2032 6.52 8.3% 111.92 6.0% 5.9% 112.35 7.22 Cheap 5.11 6/15/2032 6.52 8.3% 111.92 6.0% 6.5% 6.5% 10.0.35 9.39 Cheap 5.31 6.6% 6.6% 6.6% 6.6% 6.6% 6.6% 6.6% 6.6	6	FR59	9/15/2011	5/15/2027	1.43	7.0%	102.76	5.0%	5.6%	101.90	(63.18)	Expensive	1.37
9 FRA7 8/30/2007 2/15/2028 2.19 10.0% 109.82 5.2% 5.6% 109.94 (43.11) Expensive 2.27 11 FR55 8/19/2012 \$/15/2028 2.43 6.1% 101.91 5.3% 5.6% 101.17 (33.30) Expensive 2.27 11 FR55 8/19/2012 \$/15/2028 2.68 6.4% 102.67 5.3% 5.6% 101.17 (33.30) Expensive 2.27 11 FR55 8/19/2012 \$/15/2029 3.10 6.6% 99.75 6.5% 5.6% 102.14 84.89 Cheap 2.81 13 FR71 9/12/2013 3/15/2029 3.10 5.6% 99.75 6.5% 5.5% 109.14 84.89 Cheap 2.81 14 101 11/12/2023 4/15/2029 3.35 6.5% 104.19 5.5% 5.7% 103.67 (17.58) Expensive 3.00 11 11/12/2023 4/15/2029 3.35 6.5% 104.19 5.5% 5.7% 103.67 (17.58) Expensive 3.00 16 104 8/22/2024 7/15/2029 4.80 8.8% 102.84 5.6% 102.95 10.79 7 (17.58) Expensive 3.00 16 104 8/22/2024 7/15/2020 4.60 10.5% 103.45 5.6% 12.24 10.99 5.7% 5.8% 102.95 (12.54) Expensive 3.29 17 FR52 8/12/2020 4.68 10.5% 103.45 5.6% 5.8% 102.05 (12.54) Expensive 3.29 17 FR52 8/12/2020 4/15/2030 4.68 10.5% 103.45 5.6% 5.8% 102.03 (5.49) Expensive 4.45 19 FR87 8/13/2020 2/15/2031 5.59 5.78% 105.46 5.8% 103.03 (5.49) Expensive 4.45 19 FR87 8/13/2020 2/15/2031 5.59 5.78% 105.26 5.8% 103.03 (5.49) Expensive 4.44 10.0 12 FR52 8/12/2020 4/15/2031 5.59 5.78% 103.26 5.8% 103.03 (5.49) Expensive 4.44 10.0 12 FR52 8/12/2020 4/15/2031 5.53 7.8% 103.26 5.8% 5.8% 103.03 (5.49) Expensive 4.44 10.0 12 FR52 8/12/2020 4/15/2031 5.53 7.8% 103.26 5.8% 5.8% 113.39 (0.26 Expensive 4.44 11.1 11.1 11.1 11.1 11.1 11.1 11.	7	FR42	1/25/2007	7/15/2027	1.60	10.3%	107.95	5.0%	5.6%	107.02	(60.85)	Expensive	1.48
10	8	FR94	3/4/2022	1/15/2028	2.10	5.6%	100.68	5.3%	5.6%	100.01	(34.39)	Expensive	1.98
11 FR95 8/19/2022 8/15/2028 2.68 6.4% 102.67 5.3% 5.6% 101.87 (32.71) Expensive 2.48 12 FR99 1/27/2023 1/15/2029 3.10 6.4% 99.75 6.5% 5.6% 102.14 84.89 Cheap 2.81 13 FR71 3/12/2013 3/15/2029 3.27 9.0% 110.31 5.5% 5.7% 109.86 (15.81) Expensive 2.24 14 101 11/2/2023 4/15/2029 3.25 9.0% 110.31 5.5% 5.7% 109.86 (15.81) Expensive 3.00 15 FR78 9/7/2018 5/15/2029 3.43 8.3% 104.19 5.5% 5.7% 107.97 (17.58) Expensive 3.00 16 104 8/22/2024 7/15/2039 4.60 6.5% 103.45 5.6% 5.8% 102.25 (12.54) Expensive 3.09 16 104 8/22/2024 7/15/2030 4.60 6.5% 103.45 5.6% 5.8% 102.25 (12.54) Expensive 3.99 17 FR52 8/07/2009 8/15/2030 4.60 6.5% 103.45 5.6% 5.8% 105.00 18 FR78 9/17/2009 9/15/2030 4.60 6.5% 103.45 5.6% 5.8% 105.00 19 FR87 8/13/2000 2/15/2031 5.19 6.5% 103.45 5.6% 5.8% 105.04 (9.37) Expensive 4.05 10 FR85 5/4/2020 4/15/2031 5.35 7.8% 109.22 5.7% 5.8% 108.72 (10.97) Expensive 4.43 10 FR85 8/4/2020 4/15/2031 5.35 7.8% 109.22 5.7% 5.8% 108.72 (10.97) Expensive 4.43 12 FR73 8/6/2015 5/15/2031 5.43 8.8% 113.38 5.8% 5.8% 113.39 (0.26 Expensive 4.44 12 FR84 7/8/2014 4/15/2032 6.35 6.4% 102.44 5.9% 5.8% 102.26 (1.72) Expensive 4.46 12 FR84 1/10/2016 8/15/2032 6.35 6.4% 102.44 5.9% 5.9% 102.36 (1.72) Expensive 5.24 12 FR84 1/10/2016 8/15/2032 6.52 8.3% 111.92 6.0% 6.0% 5.9% 112.55 7.22 Cheap 5.11 12 FR84 1/10/2016 8/15/2032 6.52 8.3% 103.04 6.1% 6.0% 105.78 9.93 Cheap 5.37 12 FR86 8/3/2022 2/15/2033 7.19 7.0% 105.17 6.1% 6.0% 6.0% 105.78 9.93 Cheap 5.33 12 FR86 8/3/2022 2/15/2033 7.19 7.0% 105.17 6.1% 6.0% 6.0% 105.78 9.93 Cheap 5.33 12 FR89 7/4/2019 6/15/2032 5.57 8.8% 103.14 6.6% 6.0% 103.04 6.1% 103.69 8.94 Cheap 5.33 12 FR89 7/4/2019 6/15/2033 7.14 6.6% 103.14 6.2% 6.2% 6.3% 100.04 (1.88) Expensive 7.38 12 FR89 7/4/2019 6/15/2033 7.14 6.6% 103.64 6.2% 6.3% 100.04 (1.89) Expensive 7.38 13 FR89 7/4/2019 6/15/2033 7.14 6.6% 103.64 6.2% 6.3% 100.04 (1.89) Expensive 7.38 14 FR89 7/4/2019 6/15/2033 7.14 6.6% 103.64 6.2% 6.3% 100.04 (1.89) Expensive 7.38 15 FR89 9/15/2022 6/15/2033 7.14 6.6%	9	FR47	8/30/2007	2/15/2028	2.19	10.0%	109.82	5.2%	5.6%	108.94	(43.11)	Expensive	1.99
12 F899 1/27/2023 1/15/2029 3.10 6.49% 99.75 6.59% 5.69% 102.14 84.89 Cheap 2.21 13 F871 9/12/2013 3/15/2029 3.27 9.0% 110.31 5.59% 5.7% 109.86 (15.81) Expensive 2.84 101 11/2/2023 4/15/2029 3.35 6.99% 104.19 5.59% 5.7% 103.67 (17.58) Expensive 3.00 15 F878 9/77/2018 5/15/2029 3.35 6.99% 104.19 5.59% 5.7% 107.97 (11.57) Expensive 3.03 15 F878 9/77/2018 5/15/2029 3.43 8.3% 108.32 5.59% 5.7% 107.97 (11.57) Expensive 3.09 17 F852 8/20/2009 8/15/2020 4/8 10.5% 103.45 5.69% 5.8% 10.29 10.79 (11.57) Expensive 3.09 17 F852 8/20/2009 8/15/2030 4.68 10.5% 10.5% 10.5% 5.69% 5.8% 10.29 10.19 18 (8.06) Expensive 3.99 17 F852 8/20/2009 8/15/2030 4.68 10.5% 10.5% 10.5% 5.7% 5.8% 10.20 19.18 (8.06) Expensive 4.05 19.19	10	FR64	8/13/2012	5/15/2028	2.43	6.1%	101.91	5.3%	5.6%	101.17	(33.30)	Expensive	2.27
13 FR71 9/12/2013 3/15/2029 3.27 9.0% 10.131 5.5% 5.7% 109.86 (15.81) Expensive 2.24 1 10.11 11/2/2023 4/15/2029 3.35 6.9% 10.119 5.5% 5.7% 107.97 (11.57) Expensive 3.00 15 FR78 9/27/2018 5/15/2029 3.43 8.3% 108.32 5.5% 5.7% 107.97 (11.57) Expensive 3.00 16 104 8/22/2024 7/15/2030 4.60 6.5% 103.45 5.6% 5.8% 102.95 (12.54) Expensive 3.83 18 FR82 8/11/2019 9/15/2030 4.60 6.5% 103.45 5.6% 5.8% 10.295 (12.54) Expensive 3.83 18 FR82 8/11/2019 9/15/2030 4.77 7.0% 105.41 5.7% 5.8% 105.04 (9.37) Expensive 4.05 14.76 14	11	FR95	8/19/2022	8/15/2028	2.68	6.4%	102.67	5.3%	5.6%	101.87	(32.71)	Expensive	2.48
14 101 11/2/2023 4/15/2029 3.43 8.8% 108.32 5.5% 5.7% 103.67 17.58 Expensive 3.00 1.5 FR78 9/27/2018 5/15/2029 3.43 8.8% 108.32 5.5% 5.7% 107.97 (11.57) Expensive 3.03 3.03 1.5 FR78 9/27/2018 5/15/2029 4.60 6.5% 103.45 5.6% 5.8% 102.95 (12.54) Expensive 3.93 1.7 FR52 8/20/2009 8/15/2030 4.68 10.5% 119.50 5.7% 5.8% 119.18 (8.66) Expensive 3.93 1.7 FR52 8/20/2009 8/15/2030 4.68 10.5% 119.50 5.7% 5.8% 119.18 (8.66) Expensive 4.05 1.9 FR87 8/13/2000 2/15/2031 5.19 6.5% 103.26 5.8% 5.8% 103.03 (5.49) Expensive 4.05 1.9 FR87 8/13/2000 2/15/2031 5.19 6.5% 103.26 5.8% 5.8% 103.03 (5.49) Expensive 4.44 1.2 FR73 8/6/2015 5/15/2031 5.43 8.8% 110.32 5.8% 5.8% 113.33 (0.26) Expensive 4.44 1.2 FR73 8/6/2015 5/15/2031 5.43 8.8% 113.33 5.8% 5.8% 113.39 (0.26) Expensive 4.44 1.2 FR73 8/6/2015 5/15/2031 5.43 8.8% 110.34 5.8% 5.8% 113.39 (0.26) Expensive 4.46 1.2 FR73 8/6/2015 5/15/2031 5.40 5.9 5.9% 117.50 5.8% 5.8% 5.9% 117.20 (6.37) Expensive 5.24 1.2 FR91 7/12/2010 7/15/2031 5.60 9.5% 117.50 5.8% 5.9% 5.9% 117.20 (6.37) Expensive 5.24 1.2 FR91 7/11/2011 6/15/2032 6.52 8.3% 111.92 6.0% 5.9% 5.9% 112.35 7.22 Cheap 5.11 5.2 FR74 111/2/2012 5/15/2033 7.19 7.0% 105.17 6.1% 6.0% 6.0% 108.3 9.93 Cheap 5.73 FR91 FR74 8/17/2012 5/15/2033 7.19 7.0% 105.17 6.1% 6.0% 6.0% 105.78 9.93 Cheap 5.73 FR95 8/12/2012 5/15/2033 7.19 7.0% 105.17 6.1% 6.0% 6.0% 105.78 9.93 Cheap 5.73 FR96 8/17/2013 3/15/2034 8.27 8.4% 114.08 6.2% 6.1% 114.69 8.28 Cheap 6.11 6.1% 114.69 8.28 Cheap 6.31 1.00 FR80 7/12/2015 5/15/2035 7.90 6.8% 100.49 6.2% 6.3% 100.00 (6.2% 10.8% 10.99 9.99 Cheap 6.31 1.00 FR80 7/12/2015 5/15/2035 7.06 6.8% 104.15 6.2% 6.2% 6.1% 114.69 8.28 Cheap 6.11 6.1% 114.69 8.28 Cheap 7.32 FR91 7/12/2015 5/15/2035 9.60 6.8% 104.15 6.2% 6.2% 6.1% 104.02 (1.88) Expensive 7.83 FR93 7/12/201 5/15/2035 9.60 6.8% 104.15 6.2% 6.3% 100.09 1.76 Cheap 8.38 FR95 7/	12	FR99	1/27/2023	1/15/2029	3.10	6.4%	99.75	6.5%	5.6%	102.14	84.89	Cheap	2.81
15 FR78 9/27/2018 5/15/2029 3.43 8.3% 108.32 5.5% 5.7% 107.97 (11.57) Expensive 3.03 (11.57) (11.57) Expensive 3.03 (11.57) (1	13	FR71	9/12/2013	3/15/2029	3.27	9.0%	110.31	5.5%	5.7%	109.86	(15.81)	Expensive	2.84
16 104 8/22/2024 7/15/2030 4.60 6.5% 103.45 5.6% 5.8% 102.95 (12.54) Expensive 3.99 17 FR52 8/20/2009 8/15/2030 4.68 10.5% 119.50 5.7% 5.8% 119.18 (8.06) Expensive 3.83 18 FR82 8/1/2019 9/15/2030 4.77 7.0% 105.41 5.7% 5.8% 105.04 (9.37) Expensive 4.05 19 FR87 8/13/2020 2/15/2031 5.19 6.5% 103.26 5.8% 5.8% 103.03 (5.49) Expensive 4.44 1.0	14	101	11/2/2023	4/15/2029	3.35	6.9%	104.19	5.5%	5.7%	103.67	(17.58)	Expensive	3.00
17 FR52 8/30/2009 8/15/2030 4.68 10.5% 119.50 5.7% 5.8% 119.18 (8.06) Expensive 3.83 FR82 8/19/2019 9/15/2030 4.77 7.0% 105.41 5.7% 5.8% 105.04 (9.37) Expensive 4.05 FR87 8/13/2020 2/15/2031 5.19 6.5% 103.65 5.8% 5.8% 103.03 (5.49) Expensive 4.44 1.05 FR87 8/13/2020 4/15/2031 5.19 6.5% 103.65 5.8% 5.8% 108.72 (10.97) Expensive 4.44 1.05 FR87 8/13/2020 4/15/2031 5.35 7.8% 109.22 5.7% 5.8% 108.72 (10.97) Expensive 4.44 1.05 FR87 8/13/2020 4/15/2031 5.43 8.8% 113.33 5.8% 5.8% 108.72 (10.97) Expensive 4.44 1.05 FR87 8/13/2020 4/15/2031 5.60 9.5% 117.50 5.8% 5.8% 108.72 (10.97) Expensive 4.46 1.05 FR87 8/13/2021 4/15/2032 6.55 6.4% 102.44 5.9% 5.9% 117.20 (6.37) Expensive 4.46 1.05 FR87 8/12/2011 4/15/2032 6.55 8.3% 111.95 6.0% 5.9% 117.20 (6.37) Expensive 5.24 1.05 FR87 8/12/2011 4/15/2032 6.69 7.5% 108.21 6.0% 6.0% 108.43 3.46 Cheap 5.36 FR96 8/19/2022 2/15/2033 7.19 7.0% 105.17 6.1% 6.0% 103.59 8.94 Cheap 5.37 1.05 FR88 8/30/2012 5/15/2033 7.44 6.6% 103.04 6.1% 6.0% 103.59 8.94 Cheap 5.38 1.00 8/24/2023 2/15/2034 8.19 6.6% 102.84 6.2% 6.1% 113.46 9.8.28 Cheap 6.51 1.05 FR89 8/12/2013 4/15/2034 8.19 6.6% 102.84 6.2% 6.1% 113.46 9.8.28 Cheap 6.51 1.05 FR89 8/12/2013 4/15/2034 8.19 6.6% 102.84 6.2% 6.1% 113.46 9.8.28 Cheap 6.51 1.05 FR89 8/12/2013 4/15/2034 8.19 6.6% 102.84 6.2% 6.1% 113.46 9.8.28 Cheap 6.51 1.05 FR89 8/12/2012 6/15/2035 9.52 7.5% 109.17 6.2% 6.2% 109.38 2.59 Cheap 6.51 1.05 8/15/2036 10.44 8.3% 115.17 6.2% 6.2% 109.38 2.59 Cheap 6.51 1.05 8/15/2036 10.44 8.3% 115.17 6.2% 6.2% 104.02 (1.88) Expensive 7.33 FR89 8/12/2013 4/15/2034 8.19 1.05 8/15/2035 9.50 6.8% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.33 FR89 8/12/2013 5/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.33 FR89 1/12/201 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.33 FR89 1/12/201 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 9.36 FR89 1/12/201 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 9.36 FR89 1/12/201 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 9	15	FR78	9/27/2018	5/15/2029	3.43	8.3%	108.32	5.5%	5.7%	107.97	(11.57)	Expensive	3.03
18	16	104	8/22/2024	7/15/2030	4.60	6.5%	103.45	5.6%	5.8%	102.95	(12.54)	Expensive	3.99
19 FR87 8/13/2020 2/15/2031 5.19 6.5% 103.26 5.8% 5.8% 103.03 (5.49) Expensive 4.44 20 FR85 5/4/2020 4/15/2031 5.35 7.8% 109.22 5.7% 5.8% 108.72 (10.97) Expensive 4.44 21 FR73 8/6/2015 5/15/2031 5.43 8.8% 113.38 5.8% 5.8% 113.39 (0.26) Expensive 4.44 22 FR54 7/22/2010 7/15/2031 5.60 9.5% 117.50 5.8% 5.9% 117.20 (6.37) Expensive 4.46 23 FR91 7/8/2021 4/15/2032 6.35 6.4% 102.44 5.9% 5.9% 102.36 (1.72) Expensive 5.24 FR58 7/21/2011 6/15/2032 6.55 6.4% 102.44 5.9% 5.9% 102.36 (1.72) Expensive 5.24 FR58 7/21/2011 6/15/2032 6.69 7.5% 108.21 6.0% 6.0% 108.43 3.46 Cheap 5.11 5.25 FR74 11/10/2016 8/15/2032 6.69 7.5% 108.21 6.0% 6.0% 105.78 9.93 Cheap 5.73 FR65 8/30/2012 5/15/2033 7.44 6.6% 103.04 6.1% 6.0% 105.78 9.93 Cheap 5.73 FR65 8/30/2012 5/15/2033 7.44 6.6% 103.04 6.1% 6.0% 103.59 8.94 Cheap 5.93 8.8 100 8/24/2023 2/15/2034 8.19 6.6% 102.84 6.2% 6.1% 103.46 9.39 Cheap 6.39 FR88 7/4/2019 6/15/2035 9.52 7.5% 109.24 6.2% 6.1% 103.46 9.39 Cheap 6.31 103 8/8/2024 7/15/2035 9.50 6.8% 104.15 6.2% 6.2% 104.02 (1.88) Expensive 7.13 FR88 1/7/2021 6/15/2035 9.50 6.8% 104.15 6.2% 6.2% 104.02 (1.88) Expensive 7.13 FR88 1/7/2021 5/15/2037 11.44 9.8% 112.7.89 6.3% 6.3% 127.77 (1.64) Expensive 7.53 FR88 1/7/2021 5/15/2037 11.44 9.8% 112.7.89 6.3% 6.3% 127.77 (1.64) Expensive 7.53 FR88 1/7/2021 6/15/2035 12.52 7.1% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.53 FR88 1/7/2021 5/15/2037 11.44 9.8% 112.7.89 6.3% 6.3% 127.77 (1.64) Expensive 7.53 FR88 1/7/2021 5/15/2037 11.44 9.8% 112.7.89 6.3% 6.3% 127.77 (1.64) Expensive 7.53 FR88 1/7/2021 5/15/2037 11.44 9.8% 112.7.89 6.3% 6.3% 100.00 (6.42) Expensive 7.53 FR88 1/7/2021 6/15/2038 12.52 7.1% 100.52 6.4% 6.4% 106.49 1.24 Cheap 8.39 FR89 1/15/2022 6/15/2038 12.52 7.1% 100.52 6.4% 6.4% 106.49 1.24 Cheap 8.39 FR89 1/15/2022 6/15/2038 12.52 7.1% 100.52 6.4% 6.5% 109.69 1.76 Cheap 8.40 11.70 11.	17	FR52	8/20/2009	8/15/2030	4.68	10.5%	119.50	5.7%	5.8%	119.18	(8.06)	Expensive	3.83
20 FR85 5/4/2020 4/15/2031 5.35 7.8% 109.22 5.7% 5.8% 108.72 (10.97) Expensive 4.43 21 FR73 8/6/2015 5/15/2031 5.43 8.8% 113.38 5.8% 5.8% 13.39 (0.26) Expensive 4.44 22 FR54 7/22/2010 7/15/2031 5.60 9.5% 117.50 5.8% 5.9% 117.20 (6.37) Expensive 4.46 22 FR54 7/22/2010 4/15/2032 6.55 6.4% 102.44 5.9% 5.9% 10.236 (1.72) Expensive 5.24 FR58 7/21/2011 6/15/2032 6.55 6.4% 102.24 5.9% 5.9% 10.236 (1.72) Expensive 5.24 FR54 7/21/2011 6/15/2032 6.69 7.5% 108.21 6.0% 5.9% 112.35 7.22 Cheap 5.11 FR56 8/30/2012 5/15/2033 7.19 7.0% 105.17 6.1% 6.0% 105.78 9.93 Cheap 5.33 FR56 8/30/2012 5/15/2033 7.49 6.6% 107.84 6.2% 6.1% 103.04 6.1% 6.0% 103.59 8.94 Cheap 5.36 8/19/2022 2/15/2033 7.49 6.6% 107.84 6.2% 6.1% 103.04 9.39 Cheap 5.39 FR57 1/4/2019 6/15/2035 9.60 6.8% 104.15 6.2% 6.1% 114.69 8.28 Cheap 6.11 6.17 6.18 6.2% 6.1% 114.69 8.28 Cheap 6.11 6.17 6.18 6.2% 6.1% 114.69 8.28 Cheap 6.11 6.17 6.2% 6.2% 104.02 (1.88) Expensive 7.13 8.18 FR58 1/7/2015 5/15/2035 9.60 6.8% 104.15 6.2% 6.2% 104.02 (1.88) Expensive 7.13 FR58 7/29/2015 5/15/2037 11.44 9.8% 115.17 6.2% 6.2% 104.02 (1.88) Expensive 7.33 FR58 3/10/2012 5/15/2037 11.44 9.8% 115.17 6.2% 6.3% 100.00 (6.42) Expensive 7.53 FR58 3/10/2012 5/15/2037 11.44 9.8% 112.89 6.3% 6.3% 100.00 (6.42) Expensive 7.53 FR58 3/10/2012 5/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 FR59 1/7/2019 4/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 FR59 1/7/2019 4/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 FR59 1/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 105.76 (0.28) Expensive 10.14 FR57 1/7/2019 4/15/2043 17.53 7.1% 106.37 6.4% 6.5% 105.76 (0.28) Expensive 10.14 FR57 1/7/2019 4/15/2043 17.53 7.1% 105.79 6.6% 6.5% 105.76 (0.28) Expensive 10.14 FR57 1/7/2019 4/15/2041 15.44 9.5% 123.35 6.8% 6.5% 105.76 (0.28) Expensive 10.14 FR57 1/7/2019 4/15/2041 15.44 9.5% 123.35 6.8% 6.5% 105.76 (0.28) Expensive 10.14 FR57 1/7/2019 4/15/2041 15.44 9.5% 123.35 6.8% 6.5% 105.76 (0.28) Expensive 1	18	FR82	8/1/2019	9/15/2030	4.77	7.0%	105.41	5.7%	5.8%	105.04	(9.37)	Expensive	4.05
21 FR73 8/6/2015 5/15/2031 5.43 8.8% 113.38 5.8% 5.8% 113.39 (0.26) Expensive 4.44 22 FR84 7/22/2010 7/15/2031 5.60 9.5% 117.50 5.8% 5.9% 117.20 (6.37) Expensive 4.46 22 FR84 7/22/2010 7/15/2031 5.60 9.5% 117.50 5.8% 5.9% 117.20 (6.37) Expensive 4.46 23 FR91 7/8/2021 4/15/2032 6.55 6.4% 102.44 5.9% 5.9% 102.36 (1.72) Expensive 5.24 24 FR58 7/21/2011 6/15/2032 6.52 8.3% 111.92 6.0% 5.9% 112.35 7.22 Cheap 5.11 25 FR74 11/10/2016 8/15/2032 6.69 7.5% 108.21 6.0% 6.0% 108.43 3.46 Cheap 5.36 FR96 8/19/2022 2/15/2033 7.19 7.0% 105.17 6.1% 6.0% 105.78 9.93 Cheap 5.36 100 8/24/2023 2/15/2033 7.44 6.6% 103.04 6.1% 6.0% 103.59 8.94 Cheap 5.33 28 100 8/24/2023 2/15/2034 8.19 6.6% 102.84 6.2% 6.1% 103.46 9.39 Cheap 6.31 100 8/24/2023 2/15/2035 9.50 6.6% 102.84 6.2% 6.1% 114.69 8.28 Cheap 6.11 103 8/8/2024 7/15/2035 9.50 6.8% 104.15 6.2% 6.2% 109.38 2.59 Cheap 6.91 17 103 8/8/2024 7/15/2035 9.50 6.6% 104.15 6.2% 6.2% 104.02 (1.88) Expensive 7.13 2 FR72 7/9/2015 5/15/2036 10.44 8.3% 115.17 6.2% 6.2% 6.3% 100.00 (6.42) Expensive 7.83 2 FR72 7/9/2015 5/15/2036 10.44 8.3% 115.17 6.2% 6.2% 6.3% 100.00 (6.42) Expensive 7.83 3 FR88 1/7/2021 6/15/2036 10.44 8.3% 115.17 6.2% 6.3% 100.00 (6.42) Expensive 7.83 3 FR89 1/6/2022 7/15/2037 11.44 9.8% 127.89 6.3% 6.3% 120.77 (1.64) Expensive 7.83 5 FR93 1/6/2022 7/15/2038 12.54 7.5% 100.96 6.3% 6.3% 100.00 (6.42) Expensive 7.83 5 FR93 1/6/2022 7/15/2038 12.54 7.5% 100.95 6.3% 6.3% 100.48 (5.86) Expensive 7.83 5 FR93 1/6/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 109.69 1.76 Cheap 8.39 1/6/2022 7/15/2038 12.54 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 FR93 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 6.4% 105.69 1.24 Cheap 9.08 1.76 Cheap 8.90 1.77 Cheap 8.90 1.77 Cheap 8.93 1/6/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.5% 6.5% 105.92 2.57 Cheap 9.98 1.77 Cheap 9.98 1.	19	FR87	8/13/2020	2/15/2031	5.19	6.5%	103.26	5.8%	5.8%	103.03	(5.49)	Expensive	4.44
22 FR54 7/22/2010 7/15/2031 5.60 9.5% 117.50 5.8% 5.9% 117.20 (6.37) Expensive 4.46 23 FR91 7/8/2021 4/15/2032 6.35 6.4% 102.44 5.9% 5.9% 102.36 (1.72) Expensive 5.24 24 FR58 7/21/2011 6/15/2032 6.52 8.3% 111.92 6.0% 5.9% 102.36 (1.72) Expensive 5.24 25 FR74 11/10/2016 8/15/2032 6.69 7.5% 108.21 6.0% 6.0% 108.43 3.46 Cheap 5.31 25 FR74 11/10/2016 8/15/2033 7.19 7.0% 105.17 6.1% 6.0% 105.78 9.93 Cheap 5.73 27 FR65 8/30/2012 5/15/2033 7.19 7.0% 105.17 6.1% 6.0% 103.59 8.94 Cheap 5.33 28 100 8/24/2023 2/15/2034 8.19 6.6% 103.04 6.1% 6.0% 103.59 8.94 Cheap 5.33 28 100 8/24/2023 2/15/2034 8.19 6.6% 103.46 6.2% 6.1% 103.46 9.39 Cheap 6.39 29 FR68 8/1/2013 3/15/2034 8.27 8.4% 114.08 6.2% 6.1% 114.69 8.28 Cheap 6.11 30 FR80 7/4/2019 6/15/2035 9.52 7.5% 109.17 6.2% 6.2% 109.38 2.59 Cheap 6.91 31 103 8/8/2024 7/15/2036 10.44 8.3% 115.17 6.2% 6.2% 104.02 (1.88) Expensive 7.13 32 FR72 7/9/2015 5/15/2036 10.44 8.3% 115.17 6.2% 6.2% 115.21 0.28 Cheap 7.32 33 FR88 1/7/2021 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.53 35 FR93 1/6/2022 7/15/2037 11.61 6.4% 100.96 6.3% 6.3% 100.04 (5.86) Expensive 8.23 46 FR75 8/10/2017 5/15/2038 12.44 7.5% 105.57 6.4% 6.4% 105.69 1.76 Cheap 8.36 37 FR98 1/7/2014 4/15/2038 12.52 7.1% 105.37 6.4% 6.4% 105.69 1.76 Cheap 8.39 38 FR99 1/7/2019 4/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 7.81 39 FR79 1/7/2019 4/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 8.39 38 FR99 1/7/2019 4/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 9.84 41 106 1/9/2025 8/15/204 14.69 7.1% 106.39 6.4% 6.5% 6.5% 105.92 2.57 Cheap 9.87 41 106 1/9/2025 8/15/204 14.69 7.1% 105.64 6.6% 6.5% 6.5% 105.92 2.57 Cheap 9.87 41 106 1/9/2025 8/15/2041 15.44 9.5% 125.35 6.8% 6.5% 105.92 2.57 Cheap 9.87 41 106 1/9/2025 8/15/2041 15.44 9.5% 125.35 6.8% 6.5% 105.92 2.57 Cheap 9.87 41 106 1/9/2025 8/15/2041 15.44 9.5% 125.35 6.8% 6.6% 6.6% 105.76 (0.28) Expensive 10.19 41 FR97 7/18/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.6% 6.6% 105.76 (0.28) Expensive 10.19 41 FR97 7/18/2013 2/15/2044 1	20	FR85	5/4/2020	4/15/2031	5.35	7.8%	109.22	5.7%	5.8%	108.72	(10.97)	Expensive	4.43
23 FR91 7/8/2021 4/15/2032 6.35 6.4% 102.44 5.9% 5.9% 102.36 (1.72) Expensive 5.24 24 FR88 7/21/2011 6/15/2032 6.52 8.3% 111.92 6.0% 5.9% 1112.35 7.22 Cheap 5.11 5.5 FR74 1/10/2016 8/15/2032 6.59 7.5% 108.21 6.0% 6.0% 6.0% 108.43 3.46 Cheap 5.36 26 FR96 8/19/2022 2/15/2033 7.19 7.0% 105.17 6.1% 6.0% 105.78 9.93 Cheap 5.73 7.74 6.6% 108.41 6.0% 105.78 9.93 Cheap 5.73 7.74 6.6% 108.41 6.0% 108.41 103.59 8.94 Cheap 5.93 7.75 6.75 7.75 7.75 7.75 7.75 7.75 7.75	21	FR73	8/6/2015	5/15/2031	5.43	8.8%	113.38	5.8%	5.8%	113.39	(0.26)	Expensive	4.44
24 FR58 7/21/2011 6/15/2032 6.52 8.3% 111.92 6.0% 5.9% 112.35 7.22 Cheap 5.11 2.55 FR74 11/10/2016 8/15/2032 6.69 7.5% 108.21 6.0% 6.0% 108.43 3.46 Cheap 5.36 ERF06 8/19/2022 2/15/2033 7.19 7.0% 105.17 6.1% 6.0% 105.78 9.93 Cheap 5.73 27 FR65 8/30/2012 5/15/2033 7.14 6.6% 103.04 6.1% 6.0% 103.59 8.94 Cheap 5.93 28 100 8/24/2023 2/15/2034 8.19 6.6% 102.84 6.2% 6.1% 103.46 9.39 Cheap 6.39 28 FR68 8/1/2013 3/15/2034 8.27 8.4% 114.08 6.2% 6.1% 103.46 9.39 Cheap 6.39 28 Cheap 6.11 30 FR80 7/4/2019 6/15/2035 9.52 7.5% 109.17 6.2% 6.2% 109.38 2.59 Cheap 6.91 31 103 8/8/2024 7/15/2035 9.50 6.8% 104.15 6.2% 6.2% 109.38 2.59 Cheap 6.91 31 103 8/8/2024 7/15/2035 9.60 6.8% 104.15 6.2% 6.2% 109.38 2.59 Cheap 7.32 31 FR81 1/7/2021 6/15/2036 10.54 8.3% 115.17 6.2% 6.2% 104.02 (1.88) Expensive 7.13 32 FR72 7/9/2015 5/15/2036 10.54 8.3% 115.17 6.2% 6.2% 10.30 10.00 (6.42) Expensive 7.68 34 FR45 5/24/2007 5/15/2037 11.44 9.8% 127.89 6.3% 6.3% 100.00 (6.42) Expensive 7.53 5FR93 1/6/2022 7/15/2038 12.44 7.5% 109.52 6.4% 6.4% 100.96 1.76 Cheap 8.36 FR75 8/10/2017 5/15/2038 12.54 7.5% 109.52 6.4% 6.4% 100.49 1.24 Cheap 8.39 8/16/2022 7/15/2038 12.52 7.1% 106.37 6.4% 6.4% 100.96 1.76 Cheap 8.36 FR75 8/10/2017 5/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 17/2/2019 4/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 17/2/2008 7/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.49 40 FR83 11/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 107.00 (2.19) Expensive 9.36 17/2/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2041 15.44 9.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2041 13.36 8.4% 117.03 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2041 13.36 8.4% 117.03 6.5% 6.6% 6.5% 105.92 2.57 Cheap 9.87 4/21/2011 5/15/2041 13.54 9.5% 125.35 6.8% 6.5% 105.92 2.57 Cheap 9.87 4/21/2011 5/15/2041 13.46 9.5% 105.54 6.6% 6.6% 105.54 12.90 Cheap 9.87 4/21/2011 5/15/2041 13.54 9.5% 105.54 6.6% 6.6% 105.54 12.27 4 (3.91) Expensive 10.19 4/15/2025 8/15/2	22	FR54	7/22/2010	7/15/2031	5.60	9.5%	117.50	5.8%	5.9%	117.20	(6.37)	Expensive	4.46
25 FR74 11/10/2016 8/15/2032 6.69 7.5% 108.21 6.0% 6.0% 108.43 3.46 Cheap 5.36 Cheap 5.36 26 FR96 8/19/2022 2/15/2033 7.19 7.0% 105.17 6.1% 6.0% 105.78 9.93 Cheap 5.73 7.865 8/30/2012 5/15/2033 7.44 6.6% 103.04 6.1% 6.0% 103.59 8.94 Cheap 5.93 28 100 8/24/2033 2/15/2034 8.19 6.6% 102.84 6.2% 6.1% 103.46 9.39 Cheap 6.39 29 FR68 8/1/2013 3/15/2034 8.27 8.4% 114.08 6.2% 6.1% 103.46 9.39 Cheap 6.11 30 FR80 7/4/2019 6/15/2035 9.52 7.5% 109.17 6.2% 6.2% 109.38 2.59 Cheap 6.91 31 10.30 8/8/2024 7/15/2035 9.50 6.8% 104.15 6.2% 6.2% 115.21 0.28 Cheap 7.32 2.84 17/2021 6/15/2036 10.44 8.3% 115.17 6.2% 6.2% 115.21 0.28 Cheap 7.32 33 FR88 17/2021 6/15/2036 10.44 8.3% 115.17 6.2% 6.3% 100.00 (6.42) Expensive 7.68 4 FR45 5/24/2007 5/15/2037 11.44 9.8% 127.89 6.3% 6.3% 100.00 (6.42) Expensive 7.53 35 FR93 1/6/2022 7/15/2037 11.44 9.8% 127.89 6.3% 6.3% 100.48 (5.86) Expensive 7.33 36 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 FR98 9/15/2022 6/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 FR98 9/15/2022 6/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 FR98 9/15/2022 6/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 7.81 9.87 17/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 106.49 1.24 Cheap 9.08 FR99 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 100.09 (6.6% 105.76 Cheap 9.08 11/9/2025 8/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 17/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 17/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 105.92 2.57 Cheap 9.08 11/9/2025 8/15/2041 15.44 9.5% 125.35 6.8% 6.5% 105.92 2.57 Cheap 9.08 11/9/2025 8/15/2044 18.20 8.8% 123.19 6.6% 6.6% 6.6% 105.76 (0.28) Expensive 10.19 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.6% 6.6% 6.6% 105.76 (0.28) Expensive 10.19 6.5% 6.6% 6.6% 105.73 (0.28) Expensive 10.09 10.75 10.00 1	23	FR91	7/8/2021	4/15/2032	6.35	6.4%	102.44	5.9%	5.9%	102.36	(1.72)	Expensive	5.24
26 FR96 8/19/2022 2/15/2033 7.19 7.0% 105.17 6.1% 6.0% 105.78 9.93 Cheap 5.73 27 FR65 8/30/2012 5/15/2033 7.44 6.6% 103.04 6.1% 6.0% 103.59 8.94 Cheap 5.93 28 100 8/24/2023 2/15/2034 8.19 6.6% 102.84 6.2% 6.1% 103.46 9.39 Cheap 6.39 29 FR68 8/1/2013 3/15/2034 8.27 8.4% 114.08 6.2% 6.1% 114.69 8.28 Cheap 6.11 30 FR80 7/4/2019 6/15/2035 9.52 7.5% 109.17 6.2% 6.2% 109.38 2.59 Cheap 6.91 31 10 3 8/8/2024 7/15/2035 9.60 6.8% 104.15 6.2% 6.2% 110.02 (1.88) Expensive 7.13 32 FR72 7/9/2015 5/15/2036 10.44 8.3% 115.17 6.2% 6.2% 115.11 0.28 Cheap 7.32 33 FR88 1/7/2021 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.68 34 FR45 5/24/2007 5/15/2037 11.44 9.8% 127.89 6.3% 6.3% 127.77 (1.64) Expensive 7.53 35 FR93 1/6/2022 7/15/2037 11.61 6.4% 100.96 6.3% 6.3% 100.48 (5.86) Expensive 8.23 36 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 106.69 1.76 Cheap 8.36 37 FR98 9/15/2022 6/15/2038 12.51 7.1% 106.37 6.4% 6.4% 106.69 1.24 Cheap 8.39 38 FR50 1/24/2008 7/15/2038 12.61 10.5% 133.81 6.5% 6.4% 117.49 4.41 Cheap 8.39 39 FR79 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2041 15.44 9.5% 125.35 6.8% 6.5% 105.92 2.57 Cheap 9.87 42 FR67 7/18/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 105.92 2.57 Cheap 9.87 43 FR67 2/9/2012 4/15/2042 16.36 6.4% 9.90 6.5% 6.5% 105.92 2.57 Cheap 9.87 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2041 15.44 9.5% 125.35 6.8% 6.5% 105.92 2.57 Cheap 9.87 46 FR67 7/18/2011 5/15/2041 11.54 9.5% 125.35 6.6% 6.6% 105.43 (7.62) Expensive 10.19 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR69 9/22/2017 5/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.43 (7.62) Expensive 10.95 48 FR69 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46	24	FR58	7/21/2011	6/15/2032	6.52	8.3%	111.92	6.0%	5.9%	112.35	7.22	Cheap	5.11
27 FR65 8/30/2012 5/15/2033 7.44 6.6% 103.04 6.1% 6.0% 103.59 8.94 Cheap 5.93 28 100 8/24/2023 2/15/2034 8.19 6.6% 102.84 6.2% 6.1% 103.46 9.39 Cheap 6.39 29 FR68 8/1/2013 3/15/2034 8.27 8.4% 114.08 6.2% 6.1% 114.69 8.28 Cheap 6.11 30 FR80 7/4/2019 6/15/2035 9.52 7.5% 109.17 6.2% 6.2% 109.38 2.59 Cheap 6.91 31 103 8/8/2024 7/15/2035 9.60 6.8% 104.15 6.2% 6.2% 104.02 (1.88) Expensive 7.13 32 FR72 7/9/2015 5/15/2036 10.44 8.3% 115.17 6.2% 6.2% 102.10 0.28 Cheap 7.32 33 FR88 1/7/2021 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.68 34 FR45 5/24/2007 5/15/2037 11.44 9.8% 127.89 6.3% 6.3% 127.07 (1.64) Expensive 7.53 35 FR93 1/6/2022 7/15/2037 11.61 6.4% 100.96 6.3% 6.3% 100.48 (5.86) Expensive 8.23 36 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 37 FR98 9/15/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 38 FR50 1/24/2008 7/15/2038 12.51 10.55% 133.81 6.5% 6.4% 135.43 15.12 Cheap 8.39 38 FR50 1/24/2008 7/15/2038 12.61 10.5% 133.81 6.5% 6.4% 117.49 4.41 Cheap 8.49 40 FR83 11/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 40 FR83 11/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 FR65 4/21/2011 5/15/2041 15.44 9.5% 109.96 6.5% 6.5% 109.72 2.42 Cheap 9.08 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 105.49 6.5% 6.5% 109.72 2.42 Cheap 9.08 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 105.92 2.57 Cheap 8.98 44 FR67 7/18/2013 2/15/2044 18.20 8.8% 125.19 6.6% 6.6% 6.5% 105.92 2.57 Cheap 9.87 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.19 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.99 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.99 47 107 1/9/2025 8/15/2045 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 48 FR67 9/22/2017 5/15/2044 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR69 1/7/2021 8/15/2045 22.50 6.9% 101.88 6.7% 6.7% 107.92 4.34 Cheap 11.46	25	FR74	11/10/2016	8/15/2032	6.69	7.5%	108.21	6.0%	6.0%	108.43	3.46	Cheap	5.36
28 100 8/24/2023 2/15/2034 8.19 6.6% 102.84 6.2% 6.1% 103.46 9.39 Cheap 6.39 29 FR68 8/1/2013 3/15/2034 8.27 8.4% 114.08 6.2% 6.1% 114.69 8.28 Cheap 6.11 30 FR80 7/4/2019 6/15/2035 9.52 7.5% 109.17 6.2% 6.2% 109.38 2.59 Cheap 6.91 31 103 8/8/2024 7/15/2035 9.60 6.8% 104.15 6.2% 6.2% 104.02 (1.88) Expensive 7.13 32 FR72 7/9/2015 5/15/2036 10.44 8.3% 115.17 6.2% 6.2% 115.21 0.28 Cheap 7.32 33 FR88 1/7/2021 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.68 34 FR45 5/24/2007 5/15/2037 11.44 9.8% 127.89 6.3% 6.3% 127.77 (1.64) Expensive 7.53 35 FR93 1/6/2022 7/15/2037 11.61 6.4% 100.96 6.3% 6.3% 100.48 (5.86) Expensive 8.23 36 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 37 FR98 9/15/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 38 FR50 1/24/2008 7/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 7.81 39 FR79 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 40 FR83 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 10 1/9/2025 8/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 9.08 41 10 1/9/2025 8/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 105.92 2.57 Cheap 9.87 45 FR92 7/8/2021 6/15/2043 17.53 7.1% 106.29 6.4% 6.5% 105.92 2.57 Cheap 9.87 45 FR92 7/8/2021 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.43 (7.62) Expensive 10.14 4 FR92 7/8/2021 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.43 (7.62) Expensive 10.09 40 FR83 11/7/2019 4/15/2042 16.56 6.4% 195.79 6.6% 6.6% 105.43 (7.62) Expensive 10.09 41 FR92 7/8/2021 6/15/2043 17.53 7.1% 105.29 6.6% 6.6% 105.43 (7.62) Expensive 10.09 41 FR92 7/8/2021 6/15/2043 17.53 7.1% 105.89 6.6% 6.6% 105.43 (7.62) Expensive 10.09 41 FR92 7/8/2021 6/15/2043 17.53 7.1% 105.89 6.6% 6.6% 105.43 (7.62) Expensive 10.09 41 FR92 7/8/2021 6/15/2043 17.53 7.1% 105.89 6.6% 6.6% 105.43 (7.62) Expensive 10.09 41 FR93 7/7/8/2021 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.09	26	FR96	8/19/2022	2/15/2033	7.19	7.0%	105.17	6.1%	6.0%	105.78	9.93	Cheap	5.73
29 FR68 8/1/2013 3/15/2034 8.27 8.4% 114.08 6.2% 6.1% 114.69 8.28 Cheap 6.11 30 FR80 7/4/2019 6/15/2035 9.52 7.5% 109.17 6.2% 6.2% 109.38 2.59 Cheap 6.91 1.03 8/8/2024 7/15/2035 9.60 6.8% 104.15 6.2% 6.2% 104.02 (1.88) Expensive 7.13 1.04 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05	27	FR65	8/30/2012	5/15/2033	7.44	6.6%	103.04	6.1%	6.0%	103.59	8.94	Cheap	5.93
30 FR80 7/4/2019 6/15/2035 9.52 7.5% 109.17 6.2% 6.2% 109.38 2.59 Cheap 6.91 31 103 8/8/2024 7/15/2035 9.60 6.8% 104.15 6.2% 6.2% 104.02 (1.88) Expensive 7.13 32 FR72 7/9/2015 5/15/2036 10.44 8.3% 115.17 6.2% 6.2% 15.21 0.28 Cheap 7.32 33 FR88 1/7/2021 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.68 34 FR45 5/24/2007 5/15/2037 11.44 9.8% 127.89 6.3% 6.3% 107.77 (1.64) Expensive 7.53 35 FR93 1/6/2022 7/15/2037 11.61 6.4% 100.96 6.3% 6.3% 100.48 (5.86) Expensive 8.23 36 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 37 FR98 9/15/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 109.69 1.76 Cheap 8.39 FR99 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 135.43 15.12 Cheap 7.81 399 FR79 1/7/2019 4/15/2030 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2040 14.69 7.1% 106.39 6.4% 6.5% 106.19 (2.19) Expensive 9.36 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 41 FR62 2/9/2012 4/15/2043 16.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR97 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.19 46 FR97 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.43 (7.62) Expensive 10.09 47 107 1/9/2025 8/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.09 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.19 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.19 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.19 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 6.6% 105.43 (7.62) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 105.28 6.6% 6.6% 105.43 (7.62) Expensive 10.09 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 6.6% 105.43 (7.62) Expensive 10.09 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 6.6% 105.43 (7.62) Expensive 10.09 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 6.6% 105.43 (7.62) Expensive 10.95 10.95 10.10 10.10 10.10 10.10 10.10 10.10 10.10	28	100	8/24/2023	2/15/2034	8.19	6.6%	102.84	6.2%	6.1%	103.46	9.39	Cheap	6.39
31	29	FR68	8/1/2013	3/15/2034	8.27	8.4%	114.08	6.2%	6.1%	114.69	8.28	Cheap	6.11
32 FR72 7/9/2015 5/15/2036 10.44 8.3% 115.17 6.2% 6.2% 115.21 0.28 Cheap 7.32 33 FR88 1/7/2021 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.68 34 FR45 5/24/2007 5/15/2037 11.44 9.8% 127.89 6.3% 6.3% 127.77 (1.64) Expensive 7.53 35 FR93 1/6/2022 7/15/2037 11.61 6.4% 100.96 6.3% 6.3% 100.48 (5.86) Expensive 8.23 36 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 37 FR98 9/15/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 38 FR50 1/24/2008 7/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 7.81 39 FR79 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 40 FR83 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2041 15.44 9.5% 125.35 6.8% 6.5% 106.19 (2.19) Expensive 9.36 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 105.92 32.19 Cheap 8.98 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 105.92 2.57 Cheap 9.87 44 FR92 7/8/2021 6/15/2042 16.36 6.4% 99.02 6.5% 6.5% 98.47 (5.66) Expensive 10.14 44 FR92 7/8/2012 6/15/2042 16.36 6.4% 99.02 6.5% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.64 6.6% 6.5% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.19 47 107 1/9/2025 8/15/2043 17.53 7.1% 105.28 6.6% 6.6% 105.76 (0.28) Expensive 10.99 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.43 (7.62) Expensive 10.99 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.43 (7.62) Expensive 10.99 48 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.43 (7.62) Expensive 10.99 49 FR69 1/7/2021 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.99 49 FR69 1/7/2021 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.99 49 FR69 1/7/2021 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.99 49 FR69 1/7/2021 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 12.69	30	FR80	7/4/2019	6/15/2035	9.52	7.5%	109.17	6.2%	6.2%	109.38	2.59	Cheap	6.91
7.68 FR88 1/7/2021 6/15/2036 10.52 6.3% 100.49 6.2% 6.3% 100.00 (6.42) Expensive 7.68 6.4 FR45 5/24/2007 5/15/2037 11.44 9.8% 127.89 6.3% 6.3% 127.77 (1.64) Expensive 7.53 6.5 FR93 1/6/2022 7/15/2037 11.61 6.4% 100.96 6.3% 6.3% 100.48 (5.86) Expensive 8.23 6.5 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 FR75 8/10/2017 5/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 1/6/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 135.43 15.12 Cheap 7.81 1.39 FR93 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 1.76 FR98 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 1.76 Chea	31	103	8/8/2024	7/15/2035	9.60	6.8%	104.15	6.2%	6.2%	104.02	(1.88)	Expensive	7.13
34 FR45 5/24/2007 5/15/2037 11.44 9.8% 127.89 6.3% 6.3% 127.77 (1.64) Expensive 7.53 35 FR93 1/6/2022 7/15/2037 11.61 6.4% 100.96 6.3% 6.3% 100.48 (5.86) Expensive 8.23 36 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 37 FR98 9/15/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 38 FR50 1/24/2008 7/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 7.81 39 FR79 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 40 FR83 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2040 14.69 7.1% 106.39 6.4% 6.5% 106.19 (2.19) Expensive 9.36 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 106.19 (2.19) Expensive 10.14 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2025 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.19 47 107 1/9/2025 8/15/2043 17.53 7.1% 105.89 6.6% 6.6% 105.76 (0.28) Expensive 10.99 48 FR69 1/2/2017 5/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.43 (7.62) Expensive 10.99 49 FR89 1/7/2021 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.99 49 FR89 1/7/2021 8/15/2045 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2054 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2054 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2054 22.45 7.4% 107.38 6.7% 6.7% 107.19 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2054 22.45 7.4% 107.38 6.7% 6.7% 107.19 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2054 22.45 7.4% 107.38 6.7% 6.7% 107.19 4.34 Cheap 11.46	32	FR72	7/9/2015	5/15/2036	10.44	8.3%	115.17	6.2%	6.2%	115.21	0.28	Cheap	7.32
35 FR93 1/6/2022 7/15/2037 11.61 6.4% 100.96 6.3% 6.3% 100.48 (5.86) Expensive 8.23 36 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 37 FR98 9/15/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 38 FR50 1/24/2008 7/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 7.81 39 FR79 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 40 FR83 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2040 14.69 7.1% 106.39 6.4% 6.5% 106.19 (2.19) Expensive 9.36 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 105.92 2.57 Cheap 9.87 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 47 107 1/9/2025 8/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.43 (7.62) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	33	FR88	1/7/2021	6/15/2036	10.52	6.3%	100.49	6.2%	6.3%	100.00	(6.42)	Expensive	7.68
36 FR75 8/10/2017 5/15/2038 12.44 7.5% 109.52 6.4% 6.4% 109.69 1.76 Cheap 8.36 37 FR98 9/15/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 38 FR50 1/24/2008 7/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 7.81 39 FR79 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 40 FR83 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2040 14.69 7.1% 106.39 6.4% 6.5% 106.19 (2.19) Expensive 9.36 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 98.47 (5.66) Expensive 10.14 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.43 (7.62) Expensive 10.99 47 107 1/9/2025 8/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	34	FR45	5/24/2007	5/15/2037	11.44	9.8%	127.89	6.3%	6.3%	127.77	(1.64)	Expensive	7.53
37 FR98 9/15/2022 6/15/2038 12.52 7.1% 106.37 6.4% 6.4% 106.49 1.24 Cheap 8.39 38 FR50 1/24/2008 7/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 7.81 39 FR79 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 40 FR83 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2040 14.69 7.1% 106.39 6.4% 6.5% 106.19 (2.19) Expensive 9.36 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 98.47 (5.66) Expensive 10.14 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.29	35	FR93	1/6/2022	7/15/2037	11.61	6.4%	100.96	6.3%	6.3%	100.48	(5.86)	Expensive	8.23
38 FR50 1/24/2008 7/15/2038 12.61 10.5% 133.81 6.5% 6.4% 135.43 15.12 Cheap 7.81 3.9 FR79 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 4.0 FR83 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 4.1 106 1/9/2025 8/15/2040 14.69 7.1% 106.39 6.4% 6.5% 106.19 (2.19) Expensive 9.36 4.2 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 4.3 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 98.47 (5.66) Expensive 10.14 4.4 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 4.5 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 4.6 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.09 4.7 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 4.8 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 4.9 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	36	FR75	8/10/2017	5/15/2038	12.44	7.5%	109.52	6.4%	6.4%	109.69	1.76	Cheap	8.36
39 FR79 1/7/2019 4/15/2039 13.36 8.4% 117.03 6.5% 6.4% 117.49 4.41 Cheap 8.49 40 FR83 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2040 14.69 7.1% 106.39 6.4% 6.5% 106.19 (2.19) Expensive 9.36 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 98.47 (5.66) Expensive 10.14 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	37	FR98	9/15/2022	6/15/2038	12.52	7.1%	106.37	6.4%	6.4%	106.49	1.24	Cheap	8.39
40 FR83 11/7/2019 4/15/2040 14.36 7.5% 109.46 6.5% 6.5% 109.72 2.42 Cheap 9.08 41 106 1/9/2025 8/15/2040 14.69 7.1% 106.39 6.4% 6.5% 106.19 (2.19) Expensive 9.36 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 98.47 (5.66) Expensive 10.14 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.29	38	FR50	1/24/2008	7/15/2038	12.61	10.5%	133.81	6.5%	6.4%	135.43	15.12	Cheap	7.81
41 106 1/9/2025 8/15/2040 14.69 7.1% 106.39 6.4% 6.5% 106.19 (2.19) Expensive 9.36 42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 98.47 (5.66) Expensive 10.14 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 105.76 (0.28) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	39	FR79	1/7/2019	4/15/2039	13.36	8.4%	117.03	6.5%	6.4%	117.49	4.41	Cheap	8.49
42 FR57 4/21/2011 5/15/2041 15.44 9.5% 125.35 6.8% 6.5% 129.02 32.19 Cheap 8.98 43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 98.47 (5.66) Expensive 10.14 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 122.74 (3.91) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	40	FR83	11/7/2019	4/15/2040	14.36	7.5%	109.46	6.5%	6.5%	109.72	2.42	Cheap	9.08
43 FR62 2/9/2012 4/15/2042 16.36 6.4% 99.02 6.5% 6.5% 98.47 (5.66) Expensive 10.14 44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 122.74 (3.91) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	41	106	1/9/2025	8/15/2040	14.69	7.1%	106.39	6.4%	6.5%	106.19	(2.19)	Expensive	9.36
44 FR92 7/8/2021 6/15/2042 16.53 7.1% 105.64 6.6% 6.5% 105.92 2.57 Cheap 9.87 45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 122.74 (3.91) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	42											•	
45 FR97 8/19/2022 6/15/2043 17.53 7.1% 105.79 6.6% 6.6% 105.76 (0.28) Expensive 10.19 46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 122.74 (3.91) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	43	FR62	2/9/2012	4/15/2042	16.36	6.4%	99.02	6.5%	6.5%	98.47		Expensive	
46 FR67 7/18/2013 2/15/2044 18.20 8.8% 123.19 6.5% 6.6% 122.74 (3.91) Expensive 10.09 47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	44	FR92			16.53	7.1%	105.64	6.6%	6.5%	105.92		Cheap	9.87
47 107 1/9/2025 8/15/2045 19.70 7.1% 106.28 6.6% 6.6% 105.43 (7.62) Expensive 10.95 48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	45	FR97	8/19/2022	6/15/2043	17.53		105.79	6.6%	6.6%	105.76		Expensive	
48 FR76 9/22/2017 5/15/2048 22.45 7.4% 107.38 6.7% 6.7% 107.92 4.34 Cheap 11.46 49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	46				18.20	8.8%		6.5%	6.6%	122.74		Expensive	
49 FR89 1/7/2021 8/15/2051 25.70 6.9% 101.88 6.7% 6.7% 101.58 (2.57) Expensive 12.29 50 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 (5.74) Expensive 12.69	47	107			19.70	7.1%	106.28	6.6%	6.6%		(7.62)	Expensive	10.95
50 [*] 102 1/5/2024 7/15/2054 28.62 6.9% 101.84 6.7% 6.8% 101.12 <mark>(5.74)</mark> Expensive 12.69	48	FR76	9/22/2017	5/15/2048	22.45	7.4%	107.38	6.7%	6.7%	107.92	4.34	Cheap	11.46
	49		1/7/2021	8/15/2051	25.70	6.9%	101.88	6.7%	6.7%	101.58	(2.57)	Expensive	12.29
51 [*] 105 8/27/2024 7/15/2064 38.62 6.9% 101.47 6.8% 6.9% 99.96 (11.16) Expensive 13.73	50		1/5/2024	7/15/2054	28.62	6.9%	101.84	6.7%	6.8%	101.12	(5.74)	Expensive	12.69
taran kalendaran kanan dari beraran kanan ka	51	105	8/27/2024	7/15/2064	38.62	6.9%	101.47	6.8%	6.9%	99.96	(11.16)	Expensive	13.73

Source: Bloomberg, SSI Research



11 December 2025

INDOIS Bonds Valuation

No.	Series	Issue Date	Maturity Date	Tenure (Year)	Coupon Rate	Actual Price	Yield to Maturity	Yield Curve	Valuation Price	Spread to YC (bps)	Recommendation	Duration
1	PBS032	7/29/2021	7/15/2026	0.59	4.9%	100.03	4.8%	4.7%	100.10	10.97	Cheap	0.59
2	PBS021	12/5/2018	11/15/2026	0.93	8.5%	103.44	4.6%	4.8%	103.33	(15.55)	Expensive	0.90
3	PBS003	2/2/2012	1/15/2027	1.10	6.0%	101.01	5.0%	4.8%	101.22	17.94	Cheap	1.06
4	PBS020	10/22/2018	10/15/2027	1.85	9.0%	106.84	5.1%	5.0%	106.89	0.90	Cheap	1.71
5	PBS018	6/4/2018	5/15/2028	2.43	7.6%	105.87	5.0%	5.2%	105.49	(16.55)	Expensive	2.24
6	PBS030	6/4/2021	7/15/2028	2.60	5.9%	101.87	5.1%	5.2%	101.55	(13.50)	Expensive	2.41
7	PBSG1	9/22/2022	9/15/2029	3.77	6.6%	103.57	5.6%	5.5%	103.86	7.83	Cheap	3.32
8	PBS023	5/15/2019	5/15/2030	4.43	8.1%	109.62	5.6%	5.6%	109.78	3.53	Cheap	3.78
9	PBS012	1/28/2016	11/15/2031	5.93	8.9%	114.69	5.9%	5.8%	115.04	6.04	Cheap	4.75
10	PBS024	5/28/2019	5/15/2032	6.43	8.4%	112.29	6.0%	5.9%	113.06	13.25	Cheap	5.10
11	PBS025	5/29/2019	5/15/2033	7.43	8.4%	113.93	6.0%	6.0%	113.92	(0.47)	Expensive	5.71
12	PBS029	1/14/2021	3/15/2034	8.27	6.4%	102.43	6.0%	6.1%	101.70	(11.36)	Expensive	6.42
13	PBS022	1/24/2019	4/15/2034	8.35	8.6%	116.00	6.1%	6.1%	116.21	2.59	Cheap	6.16
14	PBS037	6/23/2021	6/23/2036	10.54	6.5%	100.32	6.5%	6.3%	101.66	17.48	Cheap	7.61
15	PBS004	2/16/2012	2/15/2037	11.19	6.1%	99.82	6.1%	6.3%	98.14	(21.29)	Expensive	8.15
16	PBS034	1/13/2022	6/15/2039	13.52	6.5%	101.29	6.4%	6.5%	100.39	(10.01)	Expensive	8.99
17	PBS007	9/29/2014	9/15/2040	14.78	9.0%	123.74	6.5%	6.5%	123.43	(3.17)	Expensive	8.84
18	PBS039	1/11/2024	7/15/2041	15.61	6.6%	101.21	6.5%	6.5%	100.85	(3.73)	Expensive	9.78
19	PBS035	3/30/2022	3/15/2042	16.27	6.8%	100.77	6.7%	6.6%	101.89	11.12	Cheap	9.86
20	PBS005	5/2/2013	4/15/2043	17.36	6.8%	101.86	6.6%	6.6%	101.63	(2.40)	Expensive	10.31
21	PBS028	7/23/2020	10/15/2046	20.86	7.8%	111.58	6.7%	6.7%	112.03	3.60	Cheap	10.92
22	PBS033	1/13/2022	6/15/2047	21.53	6.8%	101.60	6.6%	6.7%	100.73	(7.60)	Expensive	11.40
23	PBS015	7/21/2017	7/15/2047	21.61	8.0%	114.29	6.7%	6.7%	114.89	4.73	Cheap	11.02
24	PBS038	12/7/2023	12/15/2049	24.03	6.9%	102.55	6.7%	6.7%	101.75	(6.62)	Expensive	11.88

Source: Bloomberg, SSI Research



11 December 2025

Research Team			
Harry Su	Managing Director of Research	harry.su@samuel.co.id	+6221 2854 8100
Prasetya Gunadi	Head of Equity Research, Strategy, Banking	prasetya.gunadi@samuel.co.id	+6221 2854 8320
Fithra Faisal Hastiadi, Ph.D	Senior Macro Strategist	fithra.hastiadi@samuel.co.id	+6221 2854 8100
Juan Harahap	Coal, Metals, Mining Contracting, Oil & Gas, Plantations	juan.oktavianus@samuel.co.id	+6221 2854 8392
Jonathan Guyadi	Consumer, Retail, Healthcare, Cigarettes, Telco	jonathan.guyadi@samuel.co.id	+6221 2854 8846
Ahnaf Yassar	Research Associate; Property	ahnaf.yassar@samuel.co.id	+6221 2854 8392
Ashalia Fitri Yuliana	Research Associate; Macro Economics, Coal	ashalia.fitri@samuel.co.id	+6221 2854 8389
Brandon Boedhiman	Research Associate; Banking, Strategy, Metals	brandon.boedhiman@samuel.co.id	+6221 2854 8392
Fadhlan Banny	Research Associate; Cement, Media, Mining Contracting, Oil & Gas, Plantations, Poultry, Technology	fadhlan.banny@samuel.co.id	+6221 2854 8325
Jason Sebastian	Research Associate; Automotive, Telco, Tower	jason.sebastian@samuel.co.id	+6221 2854 8392
Kenzie Keane	Research Associate; Cigarettes, Consumer, Healthcare, Retail	kenzie.keane@samuel.co.id	+6221 2854 8325
Adolf Richardo	Research & Digital Production Editor	adolf.richardo@samuel.co.id	+6221 2864 8397
		-	
Digital Production Team			
Sylvanny Martin	Creative Production Lead & Graphic Designer	sylvanny.martin@samuel.co.id	+6221 2854 8100
M. Indra Wahyu Pratama	Video Editor & Videographer	muhammad.indra@samuel.co.id	+6221 2854 8100
M. Rifaldi	Video Editor	m.rifaldi@samuel.co.id	+6221 2854 8100
Raflyyan Rizaldy	SEO Specialist	raflyyan.rizaldy@samuel.co.id	+6221 2854 8100
Ahmad Zupri Ihsyan	Team Support	ahmad.zupri@samuel.co.id	+6221 2854 8100
Director			
Joseph Soegandhi	Director of Equity	joseph.soegandhi@samuel.co.id	+6221 2854 8872
	1 /	, i	
Equity Institutional Team			
Widya Meidrianto	Head of Institutional Equity Sales	anto@samuel.co.id	+6221 2854 8317
Ronny Ardianto	Institutional Equity Sales	ronny.ardianto@samuel.co.id	+6221 2854 8399
Fachruly Fiater	Institutional Sales Trader	fachruly.fiater@samuel.co.id	+6221 2854 8325
Lucia Irawati	Institutional Sales Trader	lucia.irawati@samuel.co.id	+6221 2854 8173
Alexander Tayus	Institutional Equity Dealer	alexander.tayus@samuel.co.id	+6221 2854 8319
Leonardo Christian	Institutional Equity Dealer	leonardo.christian@samuel.co.id	+6221 2854 8147
Equity Retail Team			
Damargumilang	Head of Equity Retail	atmaji.damargumilang@samuel.co.id	+6221 2854 8309
Clarice Wijana	Head of Equity Sales Support	clarice.wijana@samuel.co.id	+6221 2854 8395
Denzel Obaja	Equity Retail Chartist	denzel.obaja@samuel.co.id	+6221 2854 8342
•	• •	, -	
Gitta Wahyu Retnani Vincentius Darren	Equity Sales & Trainer	gitta.wahyu@samuel.co.id	+6221 2854 8365 +6221 2854 8348
	Equity Sales	darren@samuel.co.id	+6221 2854 8348
Sylviawati	Equity Sales Support	sylviawati@samuel.co.id	
Handa Sandiawan	Equity Sales Support	handa.sandiawan@samuel.co.id	+6221 2854 8302
Yonathan	Equity Dealer	yonathan@samuel.co.id	+6221 2854 8347
Reza Fahlevi	Equity Dealer	reza.fahlevi@samuel.co.id	+6221 2854 8359
Fixed Income Sales Team			
R. Virine Tresna Sundari	Head of Fixed Income	virine.sundari@samuel.co.id	+6221 2854 8170
Sany Rizal Keliobas	Fixed Income Sales	sany.rizal@samuel.co.id	+6221 2854 8337
			6004 0054 040
, Khairanni	Fixed Income Sales	khairanni@samuel.co.id	+6221 2854 8104
Khairanni Dina Afrilia	Fixed Income Sales Fixed Income Sales	dina.afrilia@samuel.co.id	+6221 2854 8104

DISCLAIMERS: The views expressed in this research accurately reflect the personal views of the analyst(s) about the subject securities or issuers and no part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views in this research. The analyst(s) principally responsible for the preparation of this research has taken reasonable care to achieve and maintain independence and objectivity in making any recommendations. This document is for information only and for the use of the recipient. It is not to be reproduced or copied or made available to others. Under no circumstances is it to be considered as an offer to sell or solicitation to buy any security. Any recommendation contained in this report may not be suitable for all investors. Moreover, although the information contained herein has been obtained from sources believed to be reliable, its accuracy, completeness and reliability cannot be guaranteed. All rights reserved by PT Samuel Sekuritas Indonesia.