Funding Update
for the
Farm Credit System
“Why Realtors Have Embraced Brutal Honesty, Smells Like a Farmitown”

- Lots of Americans have relocated during the Covid-19 pandemic, sometimes sight unseen. Real-estate agents are doing some truth-telling in advance.
Recent Financial Headlines

“U.S. National Debt Exceeds $30 Trillion for First Time”

- Increase from pre-pandemic levels fueled by trillions of dollars spent on aid programs for small businesses, workers and others.
Recent Financial Headlines

“U.S. Treasury Yields Rise After Positive Jobs Data”

– Move extends a recent climb in government bond yields.
Recent Financial Headlines

“U.S. Inflation Accelerates to 40-Year High”

- Consumer-price index rose at 7.5% annual rate in January
Recent Financial Headlines


– Four of the rate-setting panel’s nine members wanted a bigger increase to tame inflation.
Recent Financial Headlines

“Treasury Yields Hit 2% After Inflation Data”

- Yields on shorter-term Treasuries led gain.
Recent Financial Headlines

“As Inflation Soars, Central Banks Scramble to Lift Rates”

– Bank of England raises rates while ECB leaves door open to tighter monetary policy; facing a ‘trade-off between strong inflation and weakening growth’
Recent Financial Headlines

“China’s Property Crisis Has Investors in Green Bonds Seeing Red”

- Chinese real-estate firms sold close to $10 billion of green bonds in 2021
Recent Financial Headlines

“Eurozone Inflation Climbs to Fresh High as Russian Invasion Confronts ECB With Dilemma”

– Pickup in inflation driven by higher energy prices, with further increases likely
Recent Financial Headlines

“Oil Briefly Tops $115”

- European natural-gas prices rise as Russian ruble continues to fall
Funding Update Topics

- Global Market
- Agency Debt Market
- Funding Corporation Activity
- Yields & Spreads on FCS Debt
- FCS Liquidity
- LIBOR/SOFR
- War in Eastern Europe
Global Market

- Federal Reserve
- U.S. Treasury
- China
- War in Eastern Europe
System High Level Financials

- Assets – $436.0 billion (+ 8.8%)
- Loans – $343.9 billion (+ 9.0%)
- A.L.L. – $1.6 billion (- 9.1%)
- Cash & Invts. – $80.8 billion (+ 8.9%)
- Capital – $69.5 billion (+ 6.0%)
- Net Income – $6.8 billion (+13.2%)
Credit Rating Agencies - Outlook for the United States

- Standard & Poors – AA+
  Outlook – Stable

- Moody’s – Aaa
  Outlook – Stable

- Fitch – AAA
  Outlook – Negative
## Agency Debt Issuance

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<tbody>
<tr>
<td>F.H.L.B.</td>
<td>$2,499</td>
<td>$2,856</td>
<td>$2,739</td>
<td>$1,975</td>
<td>$1,467</td>
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<tr>
<td>FCS</td>
<td>278</td>
<td>308</td>
<td>364</td>
<td>421</td>
<td>415</td>
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<tr>
<td>Freddie Mac</td>
<td>480</td>
<td>413</td>
<td>558</td>
<td>465</td>
<td>22</td>
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<tr>
<td>Fannie Mae</td>
<td>710</td>
<td>556</td>
<td>572</td>
<td>369</td>
<td>50</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$3,967</strong></td>
<td><strong>$4,133</strong></td>
<td><strong>$4,233</strong></td>
<td><strong>$3,230</strong></td>
<td><strong>$1,954</strong></td>
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Source: Agency Websites
## Agency Debt Outstanding

<table>
<thead>
<tr>
<th>Billions of Dollars</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>F.H.L.B.</td>
<td>$1,034</td>
<td>$1,044</td>
<td>$1,005</td>
<td>$ 737</td>
<td>$653</td>
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<tr>
<td>FCS</td>
<td>265</td>
<td>280</td>
<td>292</td>
<td>322</td>
<td>353</td>
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<tr>
<td>Fannie Mae</td>
<td>278</td>
<td>204</td>
<td>158</td>
<td>275</td>
<td>202</td>
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<tr>
<td>Freddie Mac</td>
<td>317</td>
<td>274</td>
<td>254</td>
<td>284</td>
<td>182</td>
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<tr>
<td>Farmer Mac</td>
<td>16</td>
<td>16</td>
<td>19</td>
<td>22</td>
<td>23</td>
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<tr>
<td>Tenn. V.A.</td>
<td>25</td>
<td>23</td>
<td>22</td>
<td>21</td>
<td>21</td>
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<tr>
<td><strong>Total</strong></td>
<td>$1,935</td>
<td>$1,941</td>
<td>$1,750</td>
<td>$1,661</td>
<td>$1,434</td>
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</table>

Source: Agency Websites
# Funding Activity by FCS

<table>
<thead>
<tr>
<th>($ millions)</th>
<th>Discount Notes</th>
<th>Designated Bonds</th>
<th>Fixed Rate Bonds</th>
<th>Floating Rate Bonds</th>
<th>Retail Bonds</th>
<th>Other¹</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Callable</td>
<td>Non-Callable</td>
<td>LIBOR</td>
<td>SOFR</td>
<td></td>
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<tr>
<td>2/28/2022</td>
<td>22,734</td>
<td>11,100</td>
<td>110,407</td>
<td>98,981</td>
<td>1,916</td>
<td>86,517</td>
<td>30,062</td>
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<tr>
<td>12/31/2021</td>
<td>24,280</td>
<td>9,100</td>
<td>104,071</td>
<td>100,600</td>
<td>2,141</td>
<td>79,747</td>
<td>32,797</td>
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<tr>
<td>12/31/2020</td>
<td>23,524</td>
<td>3,100</td>
<td>78,971</td>
<td>90,084</td>
<td>39,437</td>
<td>56,595</td>
<td>29,712</td>
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<tr>
<td>12/31/2019</td>
<td>17,459</td>
<td>0</td>
<td>77,903</td>
<td>79,068</td>
<td>80,613</td>
<td>7,957</td>
<td>28,657</td>
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<tr>
<td>12/31/2011</td>
<td>13,647</td>
<td>21,450</td>
<td>46,429</td>
<td>43,986</td>
<td>36,155</td>
<td>0</td>
<td>21,461</td>
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</tbody>
</table>

¹ Includes Linked Deposits

Source: FFCBFC Website
Designated Bonds

• GSE Benchmark Issue
• Six Issuances in 2021
• $1 Billion, 2 & 3 yr. Maturities
• Barclays Aggregate Bond Index
• Dealer Performance/Investor Base
Designated Bond

ACCOUNT DISTRIBUTION*

- Investment Managers: 50.69%
- Central Banks: 13.47%
- State & Local Govt: 12.60%
- Corporations: 10.10%
- Banks & Credit Unions: 6.06%
- Insurance Company: 3.70%
- Charitable / Fraternal / Endowments: 2.69%
- Pensions: 0.47%

GEOGRAPHICAL DISTRIBUTION

- United States: 86.53%
- Asia: 13.47%
Dealer Group

- 37 Dealer Group Members
- MFR Securities, Inc. added in Jan. ‘22
  - Leveraging Equality and Diversity (LEAD)
  - 9 Overall LEAD Dealer Members
FCS Debt Yields Increasing

FCS Debt Yield Curve for 3/3/2022

- 3/3/22
- 1/4/22
- 3/3/21
Recent FCS Debt Yields

FCS Debt Yield Curve for 3/3/2022

- 2/22/22
- 2/25/22
- 3/3/22
Increased Risk Premiums

FCS Basis Points Spread over Treasuries

-10 0 10 20 30 40 50 60 70 80
6Month 1Year 2Year 3Year 5Year 10Year 30Year

Recent Risk Premiums

FCS Basis Points Spread over Treasuries

- 6 Month
- 1 Year
- 2 Years
- 3 Years
- 5 Years
- 10 Years
- 30 Years

2/22/2022
2/25/2022
3/3/2022
Decreased Call Activity

- Calls in ‘21 – $ 35 billion
- Calls in ‘20 – $ 115 billion
- Calls in ‘19 – $ 54 million
- Calls in ‘18 – $ 29 billion
- Calls in ‘17 – $ 5 billion

- Net Interest Spreads
  - 2.33% for ‘21, 2.26 % for ‘20, 2.04% for ‘19, 2.12% for ‘18, 2.25% for ‘17.

- Net Interest Margins
  - 2.46% for ‘21, 2.46 % for ‘20, 2.42% for ‘19, 2.46% for ‘18, 2.48% for ‘17.
Debt Maturity

- Weighted average maturity of FCS Debt
  - Dec./2021 – 3.14 years
  - Dec./2020 – 2.85 years
  - Dec./2019 – 2.82 years
  - Dec./2018 – 2.86 years
  - Dec./2017 – 2.88 years
Percentage of FCS debt maturing within 1 year.

- Dec./2021 – 37.0 percent
- Dec./2020 – 38.8 percent
- Dec./2019 – 38.9 percent
- Dec./2018 – 38.8 percent
- Dec./2017 – 39.1 percent
Days of Liquidity

- As of 12/31/21 System = 180(174) days:
  - AgFirst = 235(221) days, AgriBank = 158(146) days, FCB of TX = 185(173) days, CoBank = 180(180) days

- As of 12/31/20 System = 171 (158) days:
  - AgFirst = 196(189) days, AgriBank = 167(136) days, FCB of TX = 182(173) days, CoBank = 174(174) days
Global U.S. LIBOR referenced instruments still dominate.

16 mos. until ALL remaining LIBOR’s Tenors R.I.P. date.

Secured Overnight Financing Rate growing quickly in use.

System’s J & S LIBOR directly based debt down to $1.9 billion. No new issues. Synthetic derivative exposure notional amount $44.3 billion versus $46.2 billion yearend ’20.

FCS issued just over $46.2 billion in SOFR indexed bonds in 2021. Now dominates FCS indexed debt.
War in Eastern Europe

- Global Issue
- Major Economic Shocks
- Long Term Impacts
Summary

- Strong Demand for FCS Debt
- FCS Debt Yields Moving Higher
- FCS Risk Premiums Rising but Still Favorable
- Solid Financial Performance Continuing
- Substantial Liquidity
- LIBOR/SOFR Transition Progressing
- War in Eastern Europe Global Impact