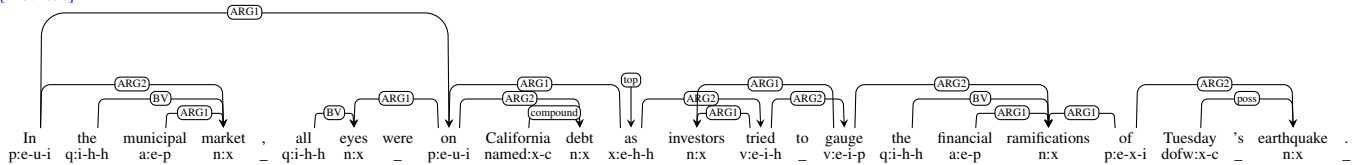
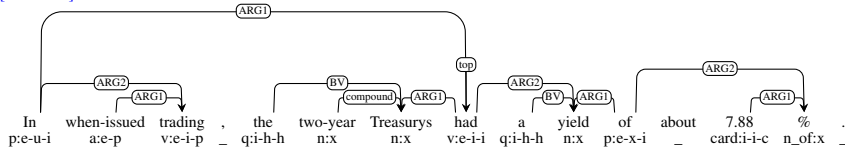
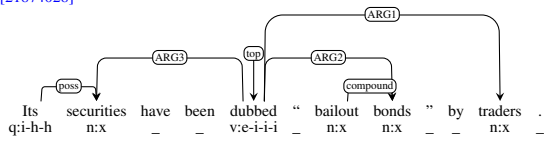
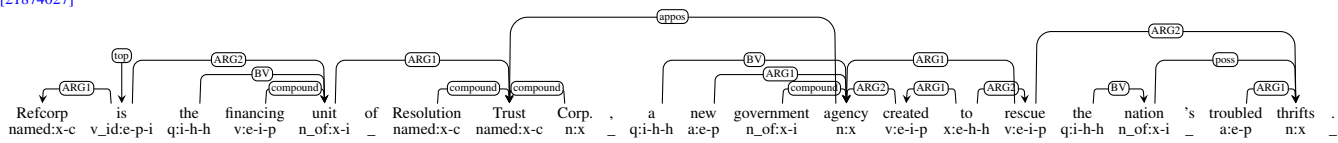
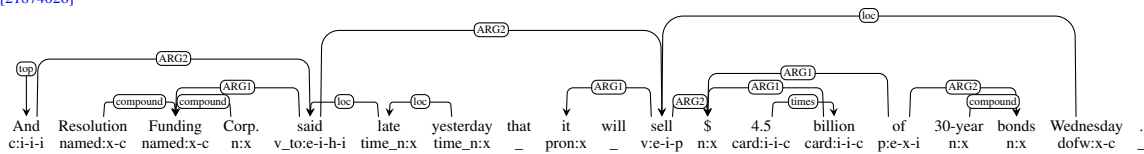
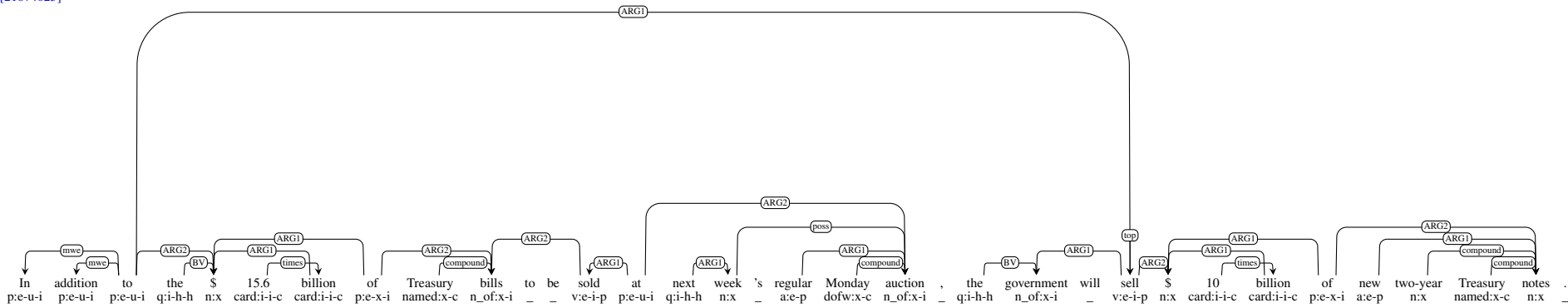
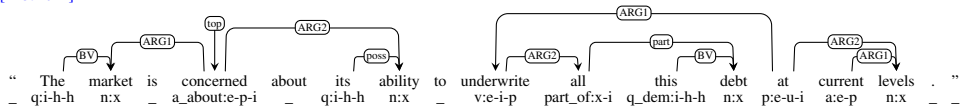
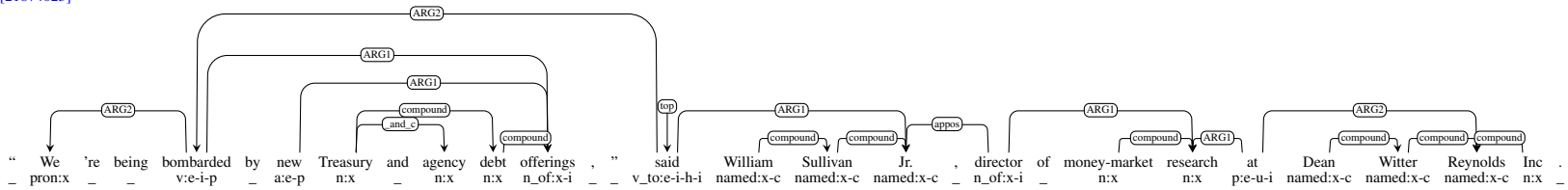
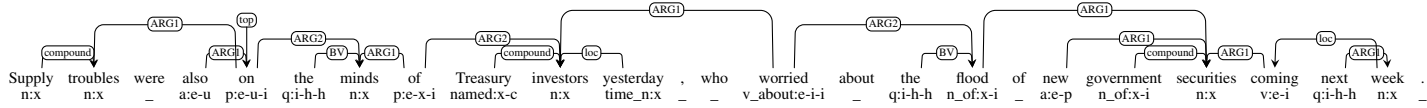
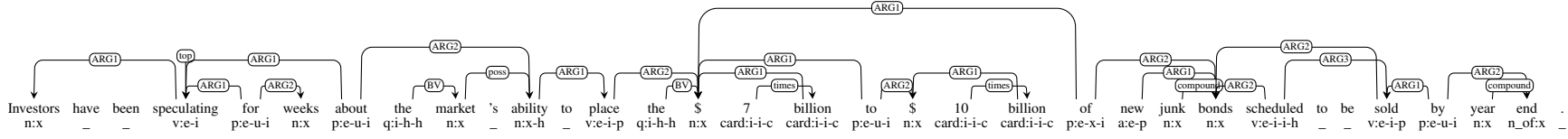
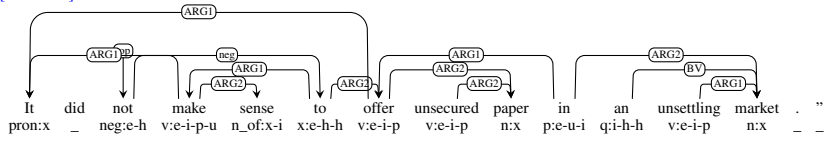
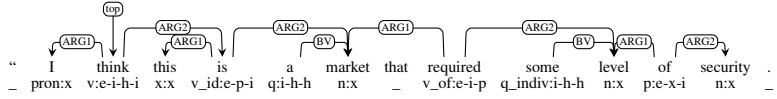
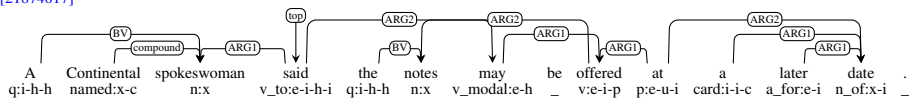
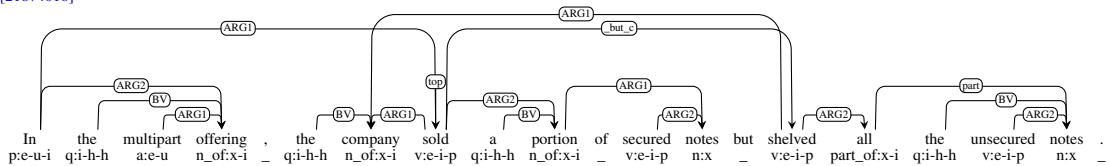
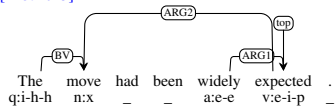
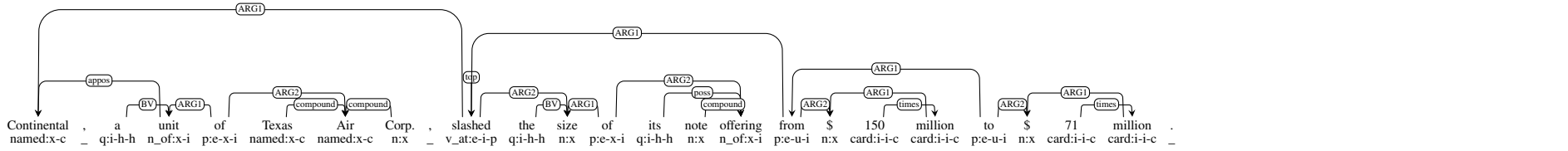


[21874002]





[illegible]

Figure 10: A semantic network for the sentence "Since those bonds already pay a slightly higher yield, an extra premium for the earthquake risk, they were not materially affected." The network shows the hierarchical structure of the sentence, with nodes representing semantic roles (ARG1, ARG2, etc.) and the words they correspond to. The sentence is: "Since those bonds already pay a slightly higher yield, an extra premium for the earthquake risk, they were not materially affected." The network shows the hierarchical structure of the sentence, with nodes representing semantic roles (ARG1, ARG2, etc.) and the words they correspond to. The sentence is: "Since those bonds already pay a slightly higher yield, an extra premium for the earthquake risk, they were not materially affected."

The figure illustrates a dependency graph for the sentence: "But some bond market analysts said that could quickly change if property casualty insurance companies scramble to sell portions of their municipal portfolios to raise cash to pay damage claims". The graph shows the hierarchical structure of the sentence, with nodes representing words and edges representing grammatical dependencies. Key dependencies include ARG1 (main clause), ARG2 (subordinate clause), and ARG3 (further sub-clauses). The graph also shows how phrases are composed (comp) from individual words or smaller phrases.

[illegible][illegible]

Figure 10: A sample sentence with its constituent parse tree. The sentence is: "Treasury report issued late yesterday by Standard & Poor's Corp. concluded the quake was not a cause for concern over wide-scale credit deterioration in the 12-county area of Northern California." The parse tree shows the hierarchical structure of the sentence, with nodes representing grammatical functions like NP, VP, PP, and S, and arcs representing the grammatical relations between words and phrases.

```

graph TD
    top[top] --> Treasury[Treasury named:x-c]
    top --> Securities[Securities named:x-c]
    Treasury --> Treasury_named_xc[Treasury named:x-c]
    Treasury --> Securities_named_xc[Securities named:x-c]

```

Treasury bonds ended narrowly mixed in quiet trading .
 named:x-c v-c-i-p v_cause:c-i-p a-c-e v-c-i-p p-e-u-i a-c-p v-c-i-p

Figure 1: A dependency parse tree for the sentence "The benchmark 30-year bond ended at a price of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday." The root node is *S*. The tree structure is as follows:

- S* branches into *NP* (The) and *VP* (benchmark 30-year bond ended at a price of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* branches into *The* and *NP* (benchmark 30-year bond).
- NP* (benchmark 30-year bond) branches into *bond* and *NP* (30-year).
- NP* (30-year) branches into *30-year* and *NP* (bond).
- VP* branches into *ended* and *PP* (at a price of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- PP* (at a price of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday) branches into *at* and *NP* (a price of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* (a price of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday) branches into *a* and *NP* (price of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* (price of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday) branches into *price* and *PP* (of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- PP* (of 100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday) branches into *of* and *NP* (100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* (100 29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday) branches into *100* and *NP* (29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* (29/32 to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday) branches into *29/32* and *NP* (to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* (to yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday) branches into *to* and *NP* (yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* (yield 8.01 % compared with 100 29/32 to yield 8.04 % Tuesday) branches into *yield* and *NP* (8.01 % compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* (8.01 % compared with 100 29/32 to yield 8.04 % Tuesday) branches into *8.01* and *NP* (% compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* (% compared with 100 29/32 to yield 8.04 % Tuesday) branches into *%* and *NP* (compared with 100 29/32 to yield 8.04 % Tuesday).
- NP* (compared with 100 29/32 to yield 8.04 % Tuesday) branches into *compared* and *NP* (with 100 29/32 to yield 8.04 % Tuesday).
- NP* (with 100 29/32 to yield 8.04 % Tuesday) branches into *with* and *NP* (100 29/32 to yield 8.04 % Tuesday).
- NP* (100 29/32 to yield 8.04 % Tuesday) branches into *100* and *NP* (29/32 to yield 8.04 % Tuesday).
- NP* (29/32 to yield 8.04 % Tuesday) branches into *29/32* and *NP* (to yield 8.04 % Tuesday).
- NP* (to yield 8.04 % Tuesday) branches into *to* and *NP* (yield 8.04 % Tuesday).
- NP* (yield 8.04 % Tuesday) branches into *yield* and *NP* (8.04 % Tuesday).
- NP* (8.04 % Tuesday) branches into *8.04* and *NP* (% Tuesday).
- NP* (% Tuesday) branches into *%* and *NP* (Tuesday).
- NP* (Tuesday) branches into *Tuesday*.

[illegible]

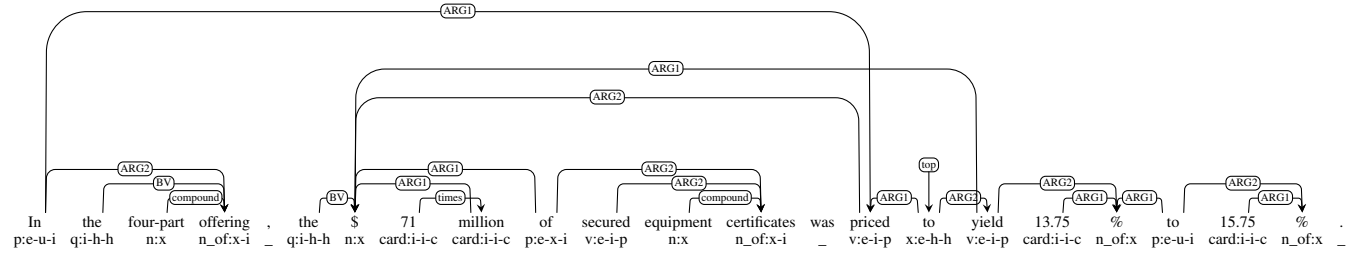
Short-term rates were little changed .
 n_of:x-i n_of:x-i _ a:e-e v_cause:e-i-p _

```

graph TD
    Op --> ABCTD
    ABCTD --> Corporate[Corporate a:c:p]
    ABCTD --> Issues[Issues n:x]
  
```

Investment-grade corporate bonds ended 1/4 point lower .
n:x a:e-p n:x v:e-i fraction-i-i-c n:o:f-x a:e-i

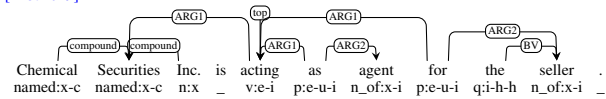
The diagram illustrates the syntactic structure of the sentence "Continental junk bond offering, underwritten by Drexel Burnham Lambert Inc., was the only new issue priced yesterday." The structure is a hierarchical tree diagram showing the relationships between the words and their grammatical functions. The root node is S (Sentence), which branches into NP (Noun Phrase) and VP (Verb Phrase). The NP branches into The, Continental, junk, bond, offering, and a comma. The VP branches into underwritten, by, Drexel, Burnham, Lambert, Inc., a comma, was, the, only, new, issue, priced, yesterday, and a period. The diagram uses various labels like NP, VP, and S to denote the syntactic categories and arrows to show the hierarchical structure.



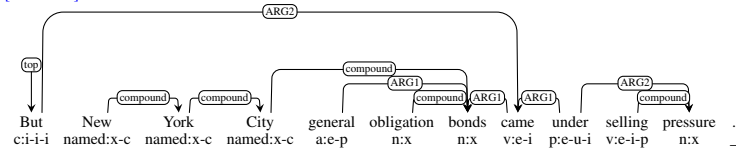
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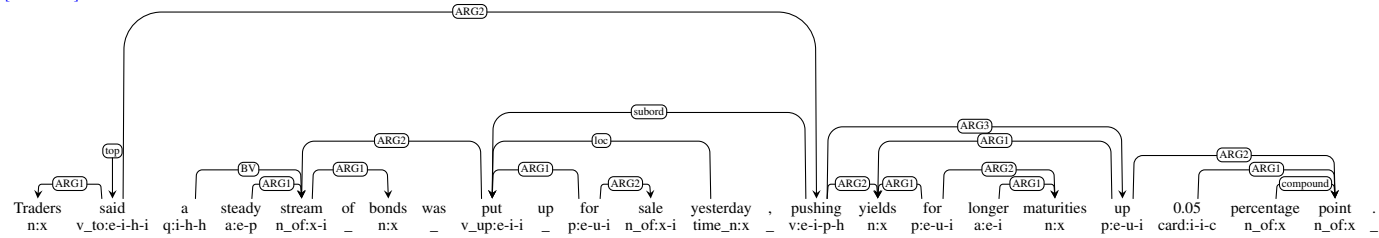
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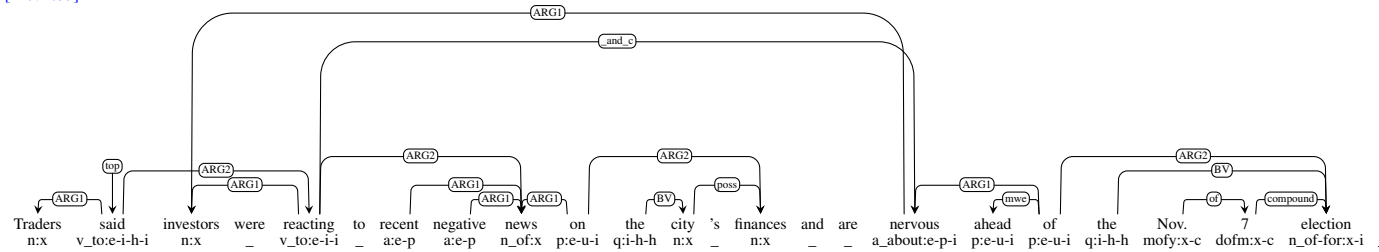
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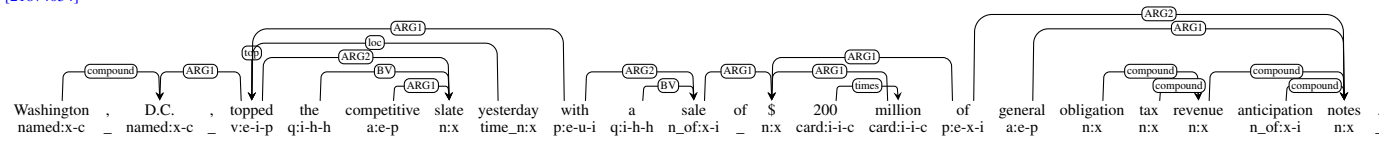
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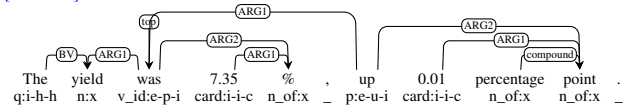
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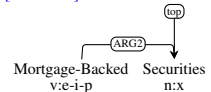
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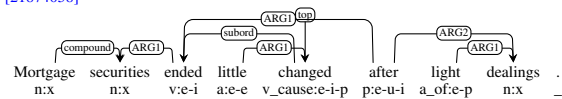
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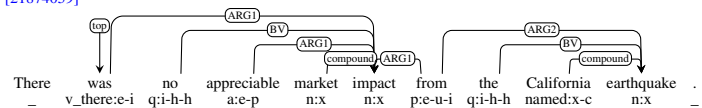
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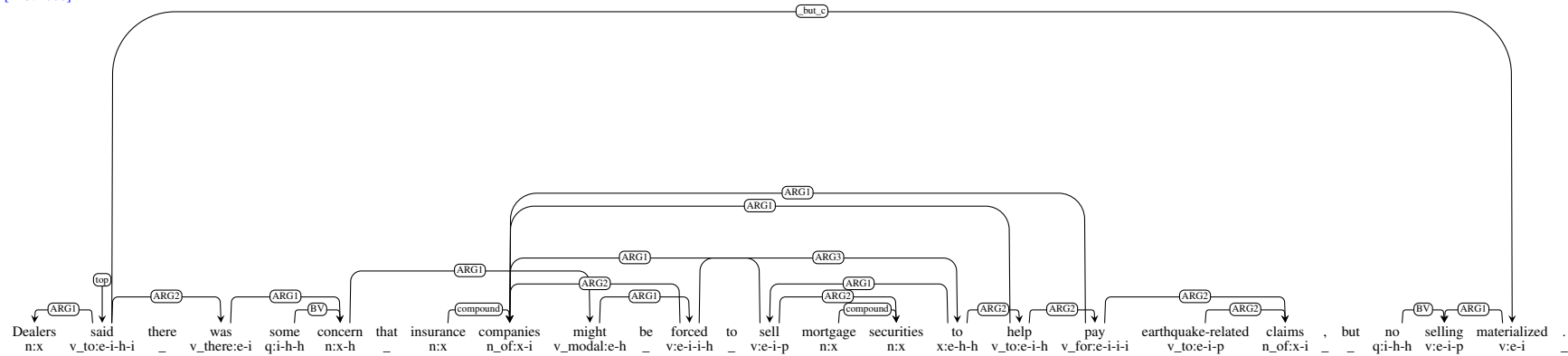
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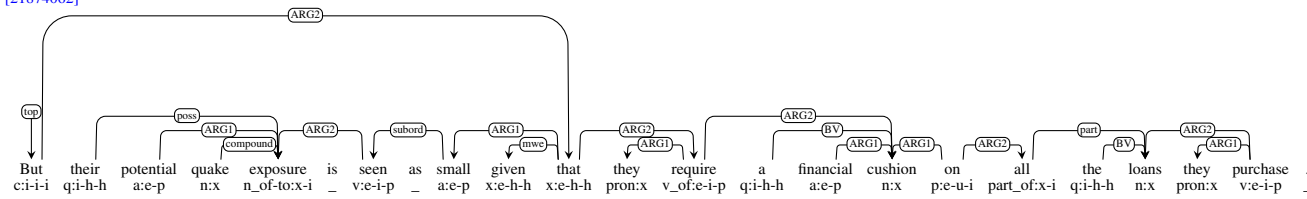
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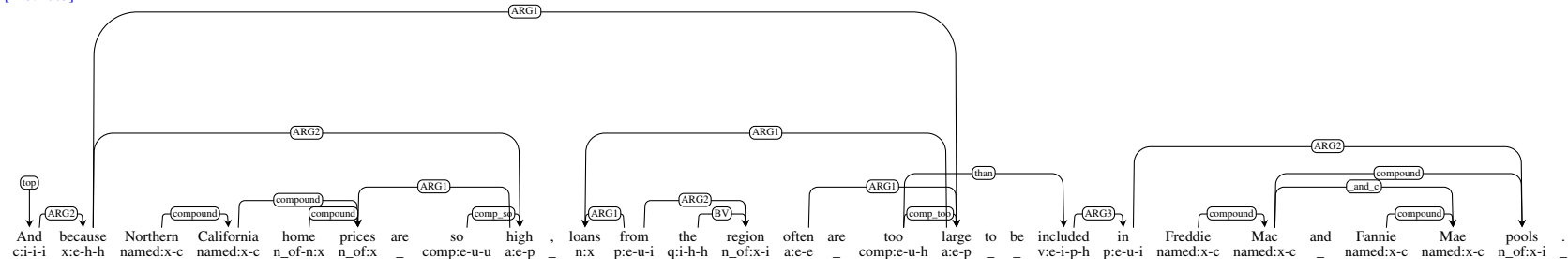
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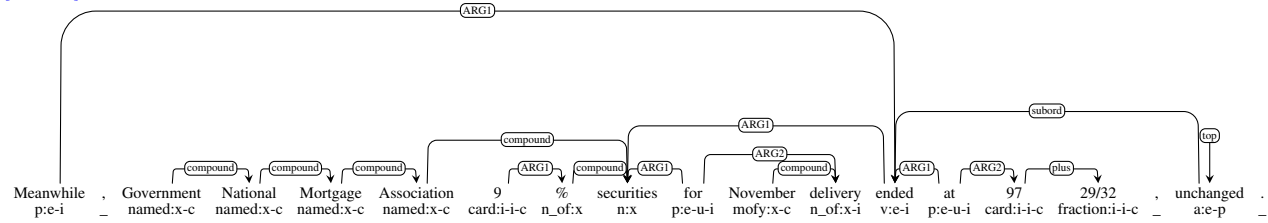
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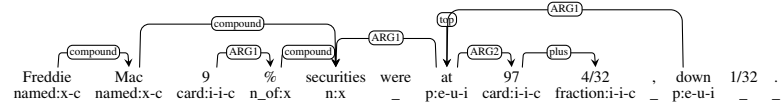
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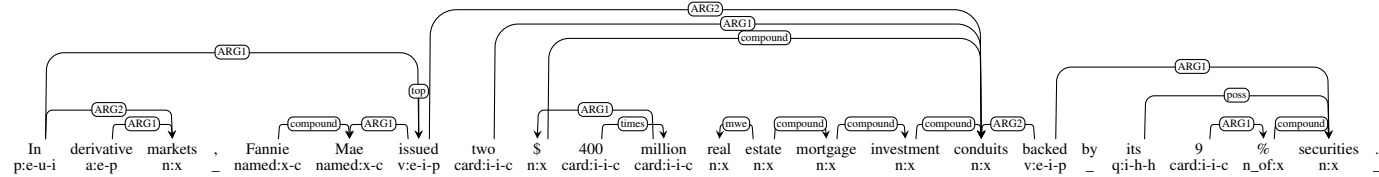
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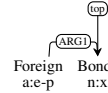
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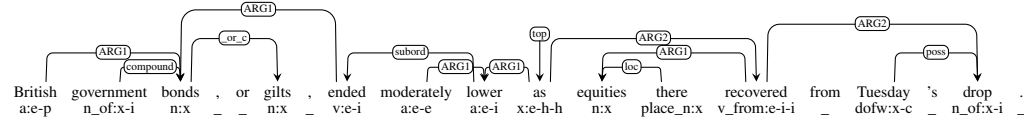
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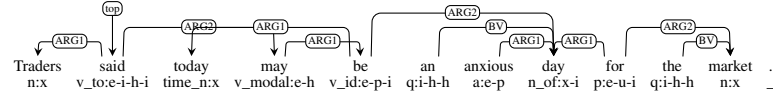
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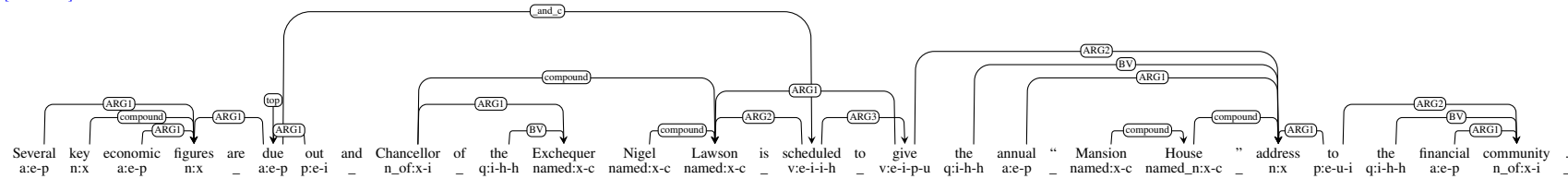
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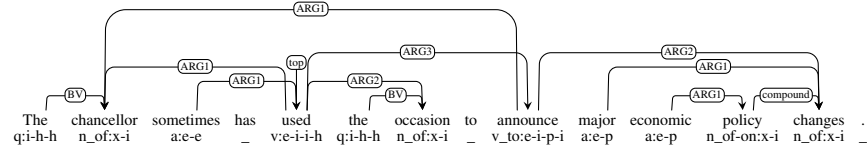
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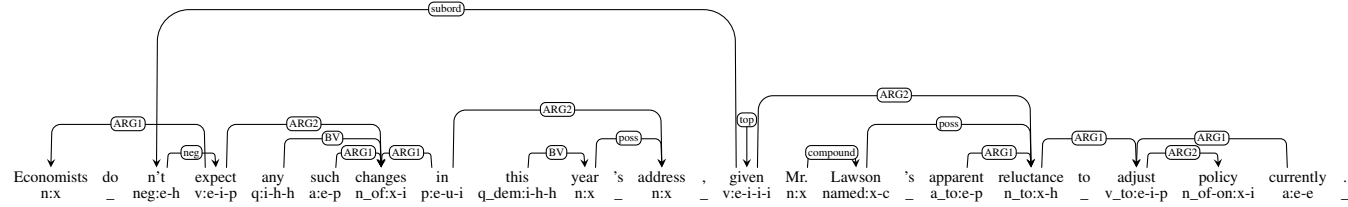
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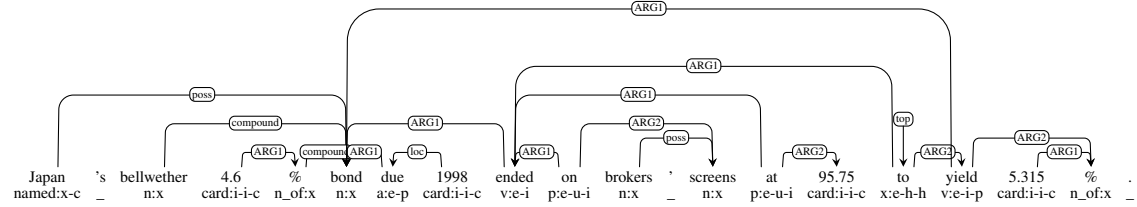
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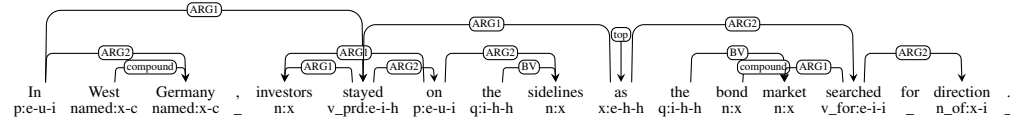
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