

## A Supplemental Material

Nominal Predicate	Verbal Form	$arg_0$	$arg_1$	$arg_2$	$arg_3$	$arg_4$
bid	bid	<i>subj</i>	<i>prep_for</i>	<i>dobj</i>	–	–
sale	sell	<i>subj</i>	<i>dobj</i>	<i>prep_to</i>	<i>prep_for</i>	<i>prep</i>
loan	loan	<i>subj</i>	<i>dobj</i>	<i>prep_to</i>	<i>prep</i>	<i>prep_at</i>
cost	cost	–	<i>subj</i>	<i>dobj</i>	<i>prep_to</i>	<i>prep</i>
plan	plan	<i>subj</i>	<i>dobj</i>	<i>prep_for</i>	<i>prep_for</i>	–
investor	invest	<i>subj</i>	<i>dobj</i>	<i>prep_in</i>	–	–
price	price	<i>subj</i>	<i>dobj</i>	<i>prep_at</i>	<i>prep</i>	–
loss	lose	<i>subj</i>	<i>dobj</i>	<i>prep_to</i>	<i>prep_on</i>	–
investment	invest	<i>subj</i>	<i>dobj</i>	<i>prep_in</i>	–	–
fund	fund	<i>subj</i>	<i>dobj</i>	<i>prep</i>	<i>prep_on</i>	–

Table 7: Mappings from the 10 nominal predicates to their verbal forms, and mappings from the semantic role labels of each predicate to the corresponding dependency labels, as discussed in Section 5.2.

#	Description
1	$p$ itself.
2	$p$ & $p$ 's morphological suffix.
3	$p$ & $iarg_n$ .
4	Verbal form of $p$ & $iarg_n$ .
5	Frequency of $p$ within the document.
6	$p$ & the stemmed content words in a one-word window around $p$ .
7	$p$ & the stemmed content words in a two-word window around $p$ .
8	$p$ & the stemmed content words in a three-word window around $p$ .
9	$p$ & whether $p$ is before a passive verb.
10	$p$ & the head of the following prepositional phrase's object.
11	$p$ & the syntactic parse tree path from $p$ to the nearest passive verb.
12	$p$ & the part-of-speech of $p$ 's parent's head word.
13	$p$ & the last word of $p$ 's right sibling.
14	Whether or not $p$ 's left sibling is a quantifier (many, most, all, etc.).

Table 8: Features used in the fill / no-fill classifier, as discussed in Section 6.3. This is a subset of features used by Gerber and Chai (2012). Here,  $p$  is the nominal predicate,  $iarg_n$  is the integer  $n$  of the semantic role label of the implicit argument, as shown in Table 7, and the & symbol denotes concatenation.