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Constant approximation algorithms for the one warehouse multiple retailers problem with backlog or lost-sales

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Highlights

- We consider the OWMR problem with deterministic time-varying demand.
- We propose a combinatorial algorithm based on a decomposition into single-echelon problems.
- With backlog, the algorithm has a performance guarantee of 3.
- This guarantee is improved to 2 in the JRP special case.
- With lost sales, a similar technique leads to a 2-approximation.

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