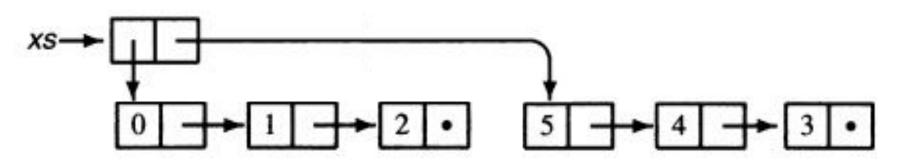


# Example: Amortized Queues





### enqueue(): Push onto 'todo' stack

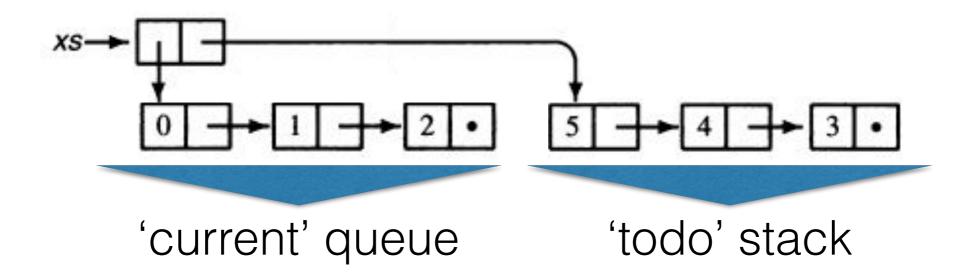
# 'current' queue



### dequeue(): Pop 'current' queue if empty, reverse 'todo' stack to make new 'current' queue

#### What is the cost?

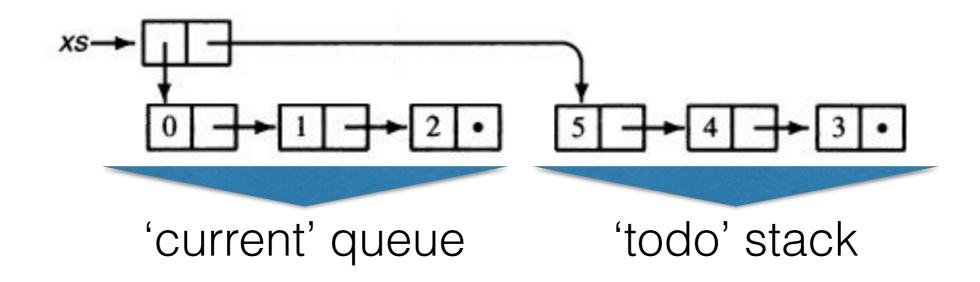
## Example: Amortized Queues



enqueue(): Push onto 'todo' stack

#### What is the cost?

## Example: Amortized Queues



enqueue(): Push onto 'todo' stack
push() is O(1) + 1 credit

dequeue(): Pop 'current' queue if empty, reverse 'todo' stack to make new 'current' queue

Pop is O(1); Reverse uses N credits for O(1) amortized