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## **Opinion: Red Wings spending \$20 million on free agents not likely to get them Stanley Cup**

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The National Hockey League (NHL) free agency signing period has begun. Fans are looking for the big signing that will move their team closer to a Stanley Cup championship. The problem is that championship teams are not built with high priced free agents, but rather, over the long haul with draft picks.

The core players on the most recent Stanley Cup champions, the Colorado Avalanche and the Tampa Bay Lightning were drafted or obtained through trades that brought them young players that were high draft picks. Such talent, like Nathan MacKinnon and Cale Makar for Colorado and Steven Stamkos and Victor Hedman for Tampa Bay, have been nurtured within a system that has led to their team's success.

Many of the top free agents available are players at, near, or after their peak. The Red Wings sent a clear message that they want to transition from their rebuild phase into a win-now mentality when they signed six free agents on July 13 totaling \$20 million per year. Several of these players are "selling high," obtaining lucrative contracts that can be debilitating for the Red Wings by an unexpected injury or, over time, age.

What complicates such contracts are salary caps that serve the best interests of owners and levels the playing field for all teams, while forcing general managers to manage their rosters under a hard financial constraint. The 2022-2023 salary cap upper bound will be \$82.5 million.

The key metric general managers must use when building rosters is a value ratio, computed as the contribution of each player to a team's success divided by the salary of a player. Player team contributions can be measured using advanced analytics like wins above replacement. If the value ratios are small for a large body of players under contract, then their return on investment will be poor, and a team's performance will suffer.

Filling a NHL roster is like solving a knapsack problem, with player salaries representing the weight of items to put in the knapsack, and the total capacity of the knapsack defined by the salary cap. The goal of every general manager is to get the most value out all their players under contract, which is why the value ratio for each player is critical to their roster decisions.

This means that long term contracts to players around their prime will generally hurt teams in the long run. They are likely to give a team a short-term boost that may even lead to a Stanley Cup run, but will almost certainly handicap a team in the future, as such contracts age poorly. Recall the Frans Nielsen contract that the Red Wings were forced to buy out.

This is also why the NHL entry draft is so important in building championship teams. Well drafted prospects on entry-level contracts typically have high value ratios.

Fans may be disappointed when their team does not sign a high-profile player that can bring immediate positive impact to the team. However, they are often only focusing on the recent performance of a free agent, not their value ratio, which includes the impact of their cost over their entire contract period.

Every team has contracts that serve as dead weights for their success. Such contracts were often signed at the peak of a player's career. They create headwind for the entire team's success as the contract ages poorly.

This is why Tampa Bay traded Ryan McDonough to Nashville for what on paper appears to provide little return. The true value that Tampa Bay gained from the trade was needed salary cap flexibility, which losing the 33-year-old defenseman's \$6.75 million annual salary gave them. The contract of John Taveres, with a \$11 million salary cap hit, places a headwind on Toronto's Stanley Cup hopes, as does Montreal's goaltender Carey Price's \$10.5 million salary cap hit.

Winning Stanley Cups is less about signing big name free agents and more about managing rosters under the salary cap. Free agency splashes are loved by fans, but do little to produce sustainable championship seasons.

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