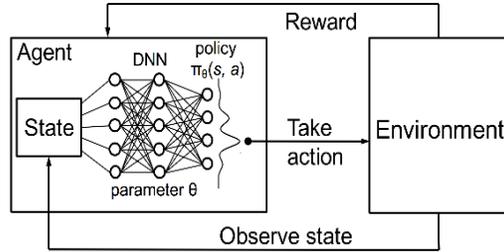


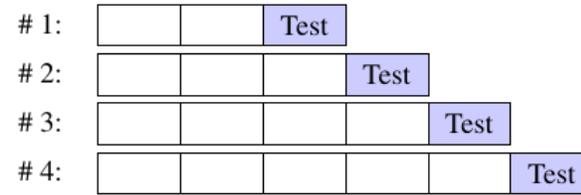
Detecting and adapting to crisis pattern with context based DRL

Main result:

DRL relates dynamically states to actions, hence can better time than traditional financial portfolio methods like Markowitz, Min Variance, Max diversification, etc...



with



walk forward analysis

TABLE I
PERFORMANCE RESULTS

	Portfolio 1	Portfolio 2	Portfolio 3	Dynamic Markovitz	Deep RL Net_profit	Deep RL Sharpe	Naive winner
Net Performance	-6.3%	-2.1%	3.9%	0.7%	8.8%	8.6%	3.9%
Std dev	6.1%	6.5%	7.3%	4.3%	4.5%	4.2%	7.3%
Sharpe ratio	na	na	0.53	0.17	1.95	2.08	0.53

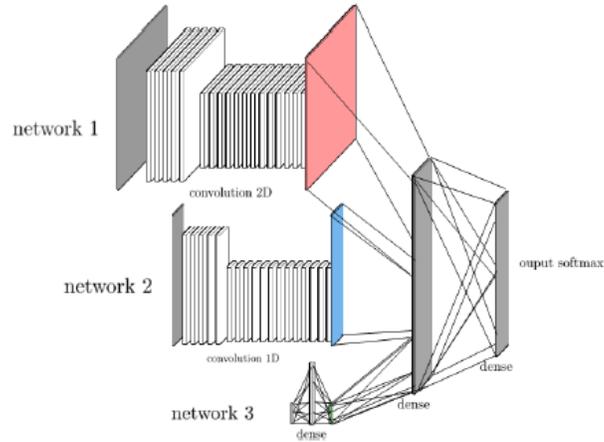


Fig. 3. Possible DRL network architecture

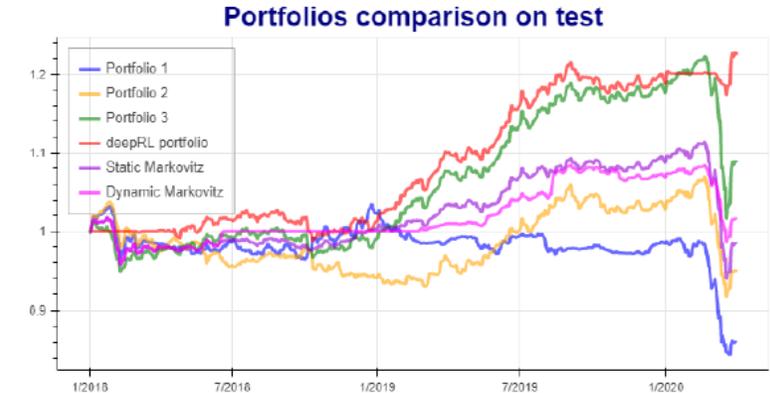
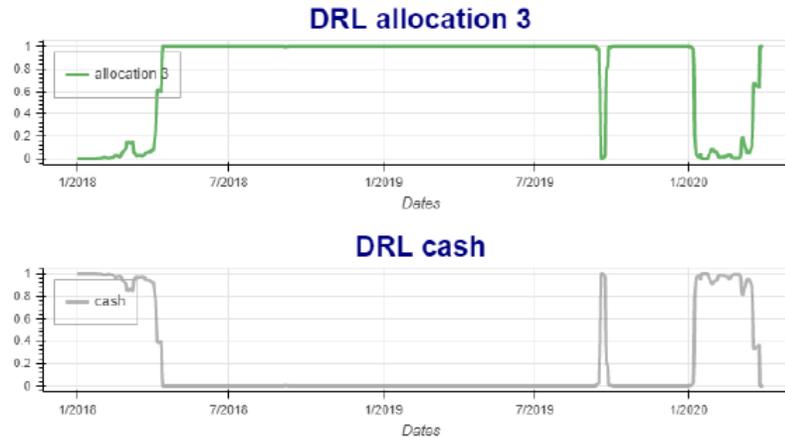


Fig. 4. Deep RL Portfolio Optimisation Result