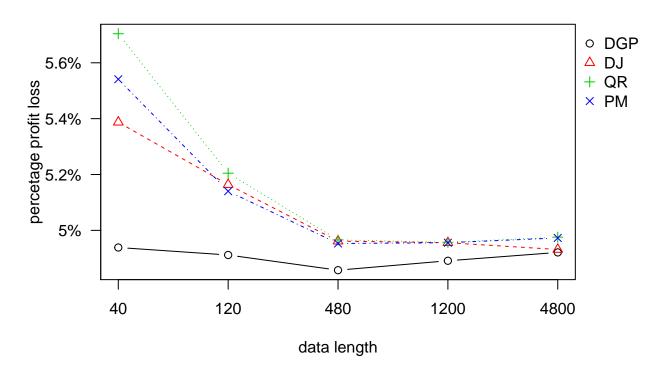
## linear norm plot

Joshua

## 15/05/2020



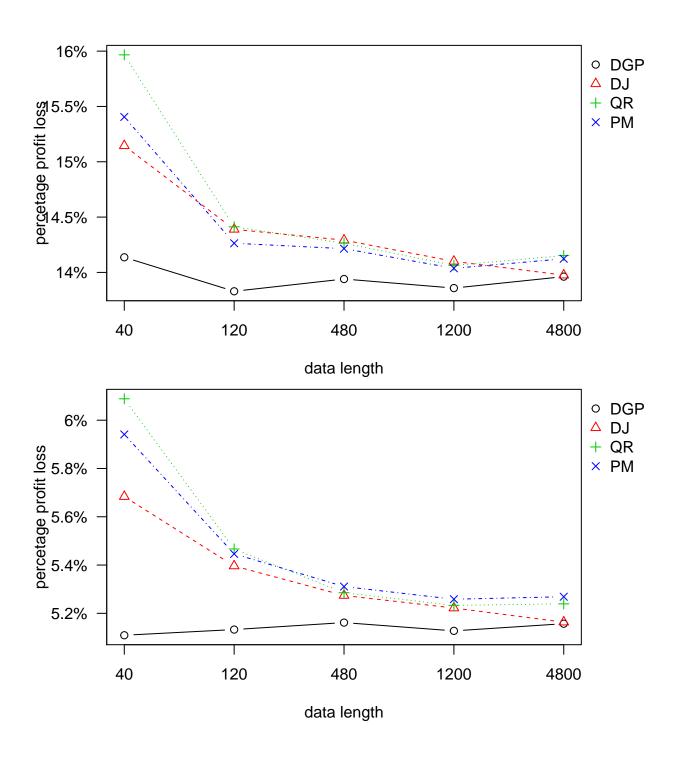
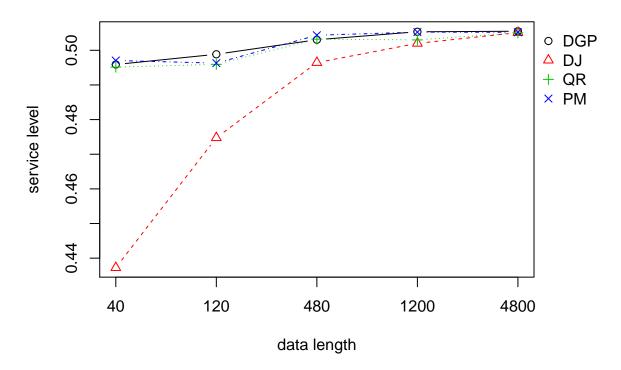
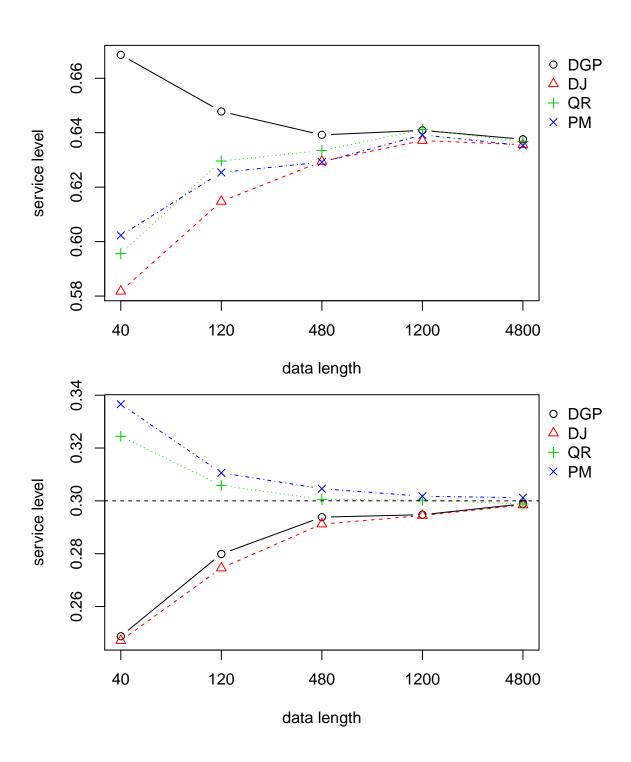


Table 1: Inventory Error

	Ta	arget serv	ice level=	0.5	Target service level=0.63				Target service level=0.3			
Data size	DGP	disjoint	quantile	proposed	DGP	disjoint	quantile	proposed	DGP	disjoint	quantile	proposed
40	1.99	34.09	1.77	1.8	-87.26	-44.73	-58.01	-60.16	135.95	151.65	107.54	96.34
	(200.66)	(222.63)	(233.39)	(226.28)	(199.72)	(221)	(233.15)	(224.07)	(200.51)	(223.65)	(236.36)	(227.96)
120	1.61	14.04	1.92	1.58	-76.12	-61.38	-70.2	-67.3	115.28	125.84	107.83	102.9
	(200.56)	(212.8)	(212.98)	(210.31)	(198.48)	(209.98)	(209.11)	(207.2)	(200.07)	(211.26)	(212.48)	(209.84)
480	0.47	3.17	0.59	0.6	-71.02	-68.82	-70.1	-68.51	107.98	112.69	106.75	104.49
	(198.72)	(204.03)	(203.36)	(202.68)	(200.36)	(206.53)	(205.13)	(204.73)	(199.38)	(205.06)	(204.3)	(204.23)
1200	-2.38	-0.47	-2.48	-2.5	-70.72	-70.91	-71.07	-69.76	105.82	109.25	106.58	104.52
	(199.39)	(203.18)	(202.09)	(202.03)	(199.34)	(203.33)	(202.4)	(202.48)	(199.16)	(203.65)	(202.63)	(202.71)
4800	-1.55	-1.16	-1.56	-1.54	-70.97	-70.85	-71.33	-70.19	104.47	104.92	105.5	103.93
	(200.29)	(200.87)	(202.44)	(202.35)	(200.37)	(200.67)	(202.96)	(202.96)	(200.04)	(200.5)	(202.81)	(203.12)





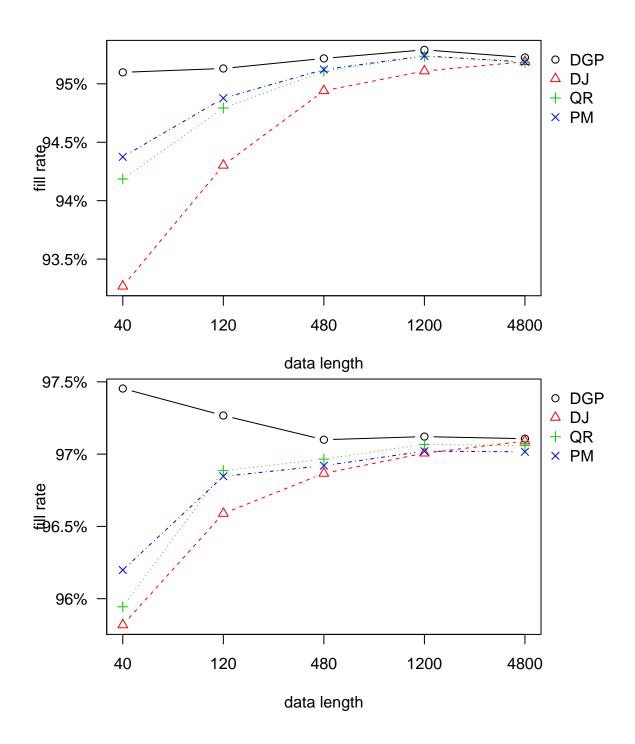
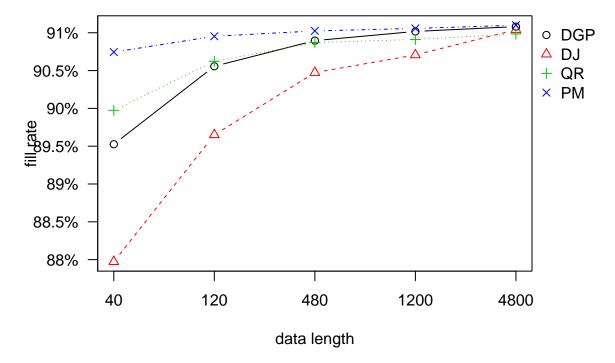


Table 2: p-value of Wilcoxon Test between data size 1200 and 4800

Target service level	DGP	disjoint	quantile	proposed
0.5	0.9760663	0.5352529	0.6818003	0.9920214
0.63	0.4985604	0.7551821	0.3542025	0.4172805
0.3	0.3694827	0.3811101	0.7433179	0.9046018

Table 3: Target service level effect (n=40)

		Percentag	ge profit l	loss	Service level					
Target service level	DGP	disjoint	quantile	proposed	DGP	disjoint	quantile	proposed		
0.5	4.9%	5.4%	5.7%	5.5%	0.50	0.44	0.50	0.50		
0.63	14.1%	15.1%	16.0%	15.4%	0.67	0.58	0.60	0.60		
0.3	5.1%	5.7%	6.1%	5.9%	0.25	0.25	0.32	0.34		



 $\left\{ \text{table} \right\}$ 

 $\color{Size effect (q=30\%)}$ 

Percentage profit loss						Serv	ice level		Fill rate			
Data size	DGP	disjoint	quantile	proposed	DGP	disjoint	quantile	proposed	DGP	disjoint	quantile	proposed
40	5.1%	5.7%	6.1%	5.9%	0.25	0.25	0.32	0.34	89.5%	88.0%	90.0%	90.7%
120	5.1%	5.4%	5.5%	5.4%	0.28	0.27	0.31	0.31	90.6%	89.7%	90.6%	91.0%
480	5.2%	5.3%	5.3%	5.3%	0.29	0.29	0.30	0.30	90.9%	90.5%	90.9%	91.0%
1200	5.1%	5.2%	5.2%	5.3%	0.29	0.29	0.30	0.30	91.0%	90.7%	90.9%	91.1%
4800	5.2%	5.2%	5.2%	5.3%	0.30	0.30	0.30	0.30	91.1%	91.0%	91.0%	91.1%
					\	$\operatorname{end}\{\operatorname{tak}$	ole}					

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Table 4: Target service level effect (n=480)

		Percentag	ge profit l	loss	Service level					
Target service level	DGP	disjoint	quantile	proposed	DGP	disjoint	quantile	proposed		
0.5	4.9%	5.0%	5.0%	5.0%	0.50	0.50	0.50	0.50		
0.63	13.9%	14.3%	14.3%	14.2%	0.64	0.63	0.63	0.63		
0.3	5.2%	5.3%	5.3%	5.3%	0.29	0.29	0.30	0.30		

Table 5: Target service level effect (n=4800)

		Percentag	ge profit l	oss	Service level					
Target service level	DGP	disjoint	quantile	proposed	DGP	disjoint	quantile	proposed		
0.5	4.9%	4.9%	5.0%	5.0%	0.51	0.51	0.51	0.51		
0.63	14.0%	14.0%	14.2%	14.1%	0.64	0.64	0.64	0.64		
0.3	5.2%	5.2%	5.2%	5.3%	0.30	0.30	0.30	0.30		