

What happens to Cost per Unit if a firm wants to grow?

Suppose that Factories cost \$25 each:

Small Firm:

2 factories

Q	TC	ATC
0	\$50	
1	\$150	\$150.00
2	\$160	\$80.00
3	\$180	\$60.00
4	\$210	\$52.50
5	\$260	\$52.00
6	\$320	\$53.33
7	\$400	\$57.14
8	\$500	\$62.50

Medium Firm

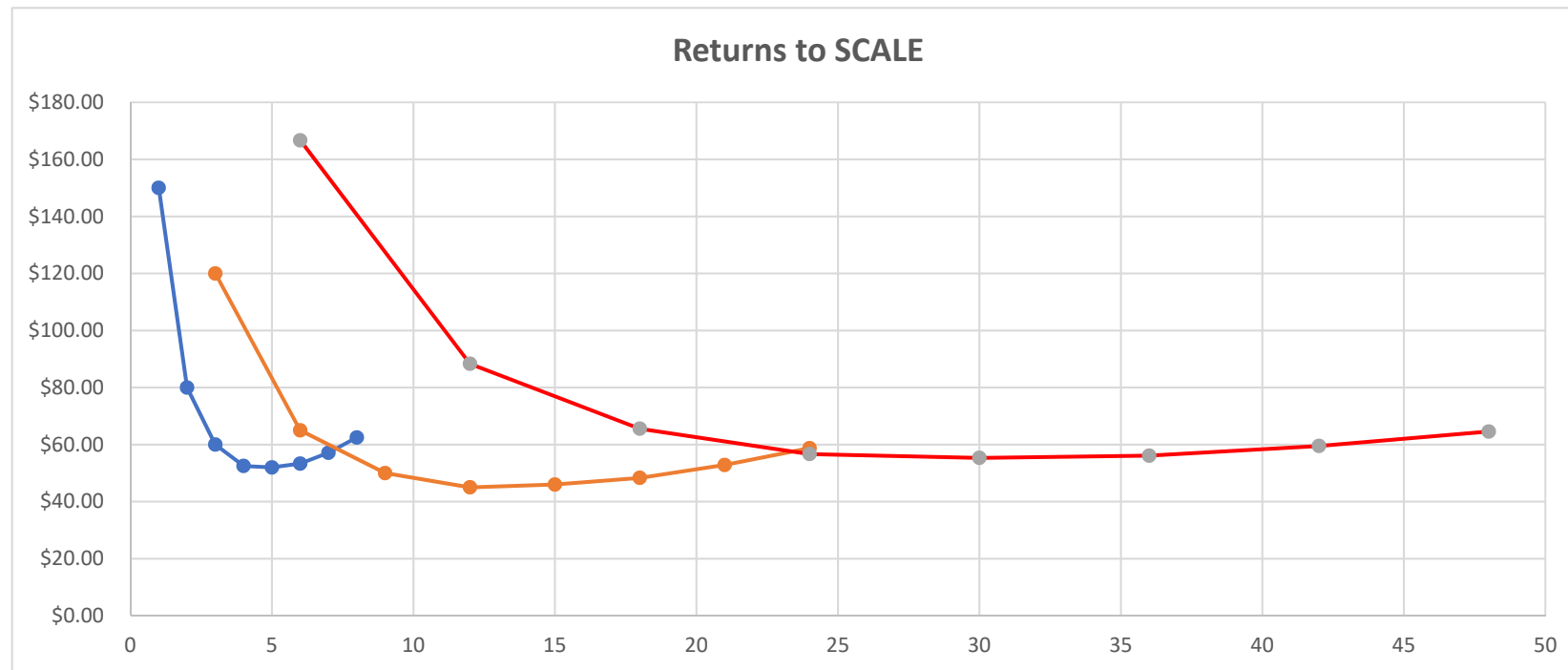
6 factories

Q	TC	ATC
0	\$150	
3	\$360	\$120.00
6	\$390	\$65.00
9	\$450	\$50.00
12	\$540	\$45.00
15	\$690	\$46.00
18	\$870	\$48.33
21	\$1,110	\$52.86
24	\$1,410	\$58.75

Large Firm

12 factories

Q	TC	ATC
0	\$300	
6	\$1,000	\$166.67
12	\$1,060	\$88.33
18	\$1,180	\$65.56
24	\$1,360	\$56.67
30	\$1,660	\$55.33
36	\$2,020	\$56.11
42	\$2,500	\$59.52
48	\$3,100	\$64.58



What happens to Cost per Unit as More firms Enter?



Constant Cost Industry

First 100 Firms

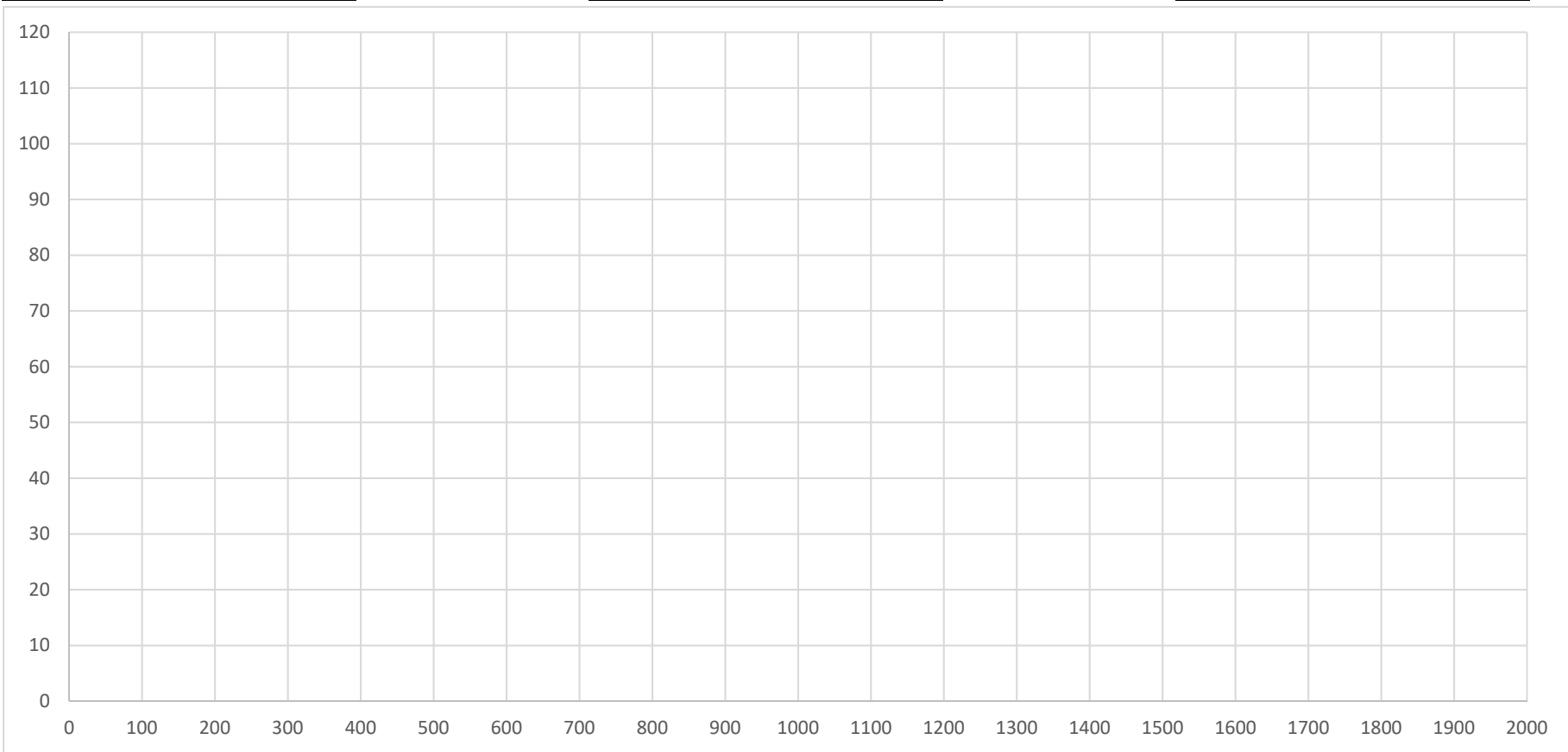
Q	TC	ATC
0	\$50	
1	\$150	\$150.00
2	\$160	\$80.00
3	\$180	\$60.00
4	\$210	\$52.50
5	\$260	\$52.00
6	\$320	\$53.33
7	\$400	\$57.14
8	\$500	\$62.50

Next 100 Firms

Q	TC	ATC
0	\$50	
1	\$150	\$150.00
2	\$160	\$80.00
3	\$180	\$60.00
4	\$210	\$52.50
5	\$260	\$52.00
6	\$320	\$53.33
7	\$400	\$57.14
8	\$500	\$62.50

Next 100 Firms

Q	TC	ATC
0	\$50	
1	\$150	\$150.00
2	\$160	\$80.00
3	\$180	\$60.00
4	\$210	\$52.50
5	\$260	\$52.00
6	\$320	\$53.33
7	\$400	\$57.14
8	\$500	\$62.50



Increasing Cost Industry



First 100 Firms

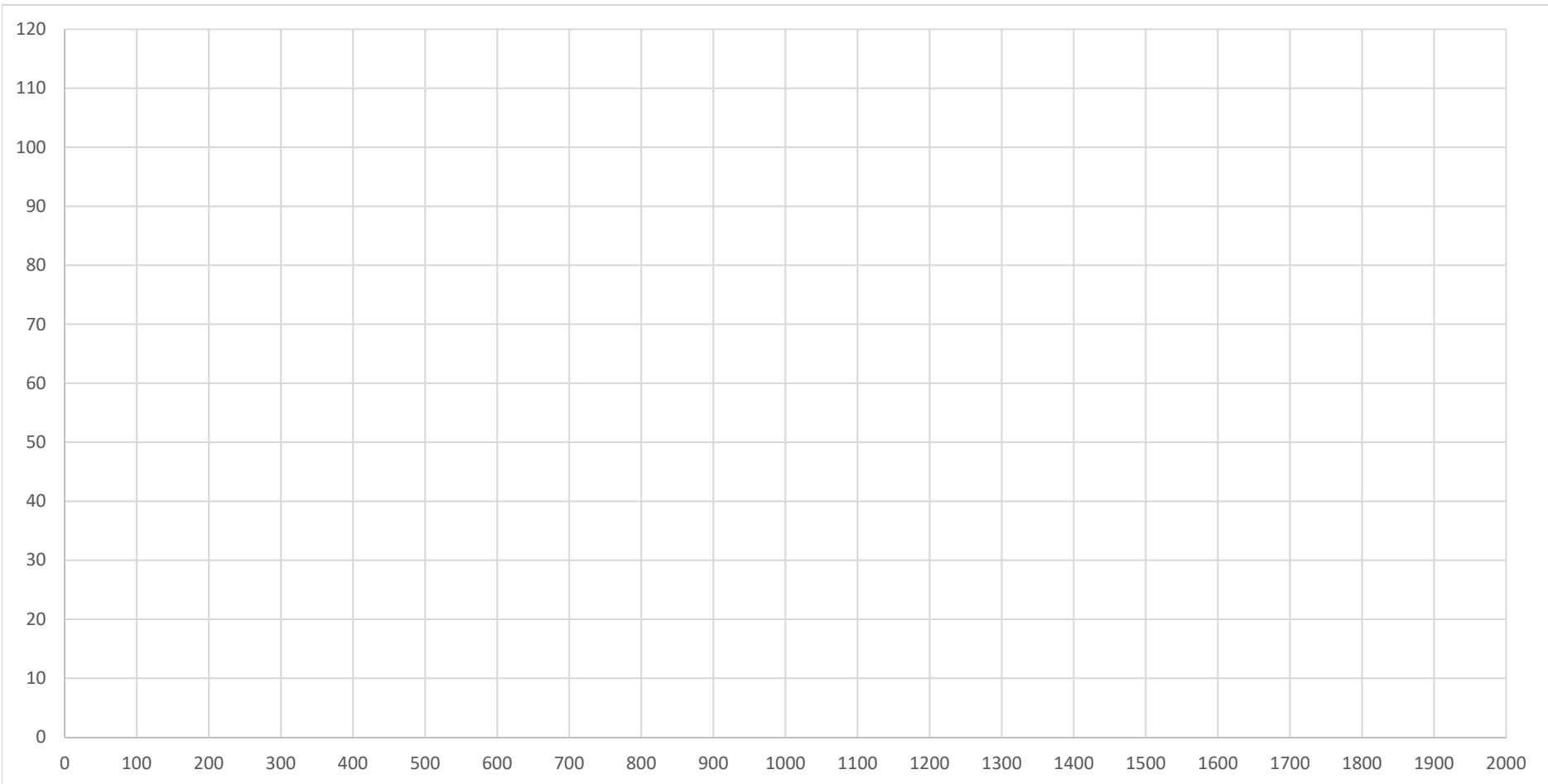
Q	TC	ATC
0	\$50	
1	\$150	\$150.00
2	\$160	\$80.00
3	\$180	\$60.00
4	\$210	\$52.50
5	\$260	\$52.00
6	\$320	\$53.33
7	\$400	\$57.14
8	\$500	\$62.50

Next 100 Firms

Q	TC	ATC
0	\$60	
1	\$180	\$180.00
2	\$192	\$96.00
3	\$216	\$72.00
4	\$252	\$63.00
5	\$312	\$62.40
6	\$384	\$64.00
7	\$480	\$68.57
8	\$600	\$75.00

Next 100 Firms

Q	TC	ATC
0	\$72	
1	\$216	\$216.00
2	\$230	\$115.20
3	\$259	\$86.40
4	\$302	\$75.60
5	\$374	\$74.88
6	\$461	\$76.80
7	\$576	\$82.29
8	\$720	\$90.00





Decreasing Cost Industry

First 100 Firms

Q	TC	ATC
0	\$50	
1	\$150	\$150.00
2	\$160	\$80.00
3	\$180	\$60.00
4	\$210	\$52.50
5	\$260	\$52.00
6	\$320	\$53.33
7	\$400	\$57.14
8	\$500	\$62.50

Next 100 Firms

Q	TC	ATC
0	\$40	
1	\$120	\$120.00
2	\$128	\$64.00
3	\$144	\$48.00
4	\$168	\$42.00
5	\$208	\$41.60
6	\$256	\$42.67
7	\$320	\$45.71
8	\$400	\$50.00

Next 100 Firms

Q	TC	ATC
0	\$32	
1	\$96	\$96.00
2	\$102	\$51.20
3	\$115	\$38.40
4	\$134	\$33.60
5	\$166	\$33.28
6	\$205	\$34.13
7	\$256	\$36.57
8	\$320	\$40.00

