Appendix: Do relatively democratic countries grow faster?

All graphs final version

Graphs reported in the main paper are indicated as [figure nr]. All curves are either kernel regressions with the bandwidth (bw) mentioned or histograms. The kernel curves for T^F, T^P, and T^V are drawn in light gray, dark gray, and black respectively. The 95% confidence intervals on Figures 1 and 2 are for the T^F-curve.

1 All 5 graphs with 3 curves

Figure A1a

Three curves

For all

See also Figure A3
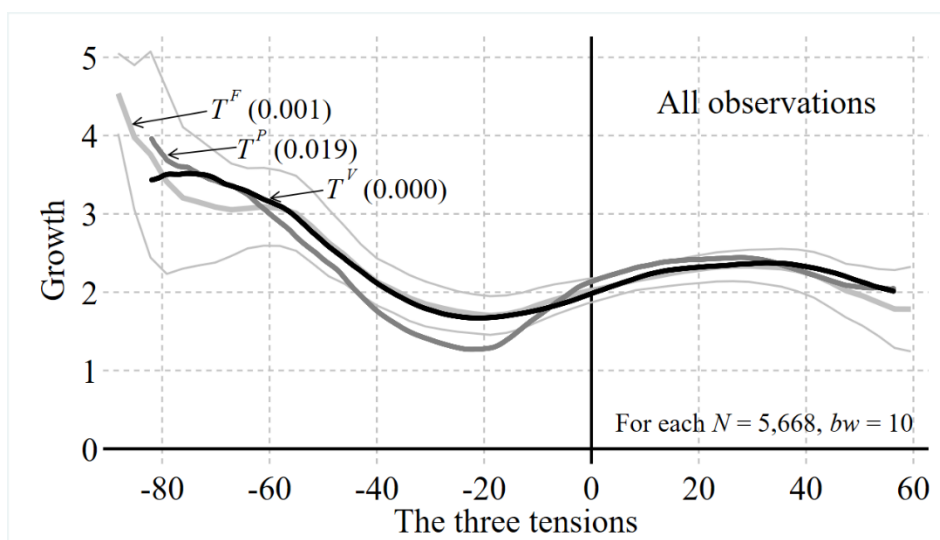
The three curves on Figure A1 are drawn individually with confidence intervals as Figure A3a to c. Figure A2a to c and Part 3 to 6 are for 4 parts divided by income, see Table 1

Table 1. The four parts of the data. They are divided by y

Part	N	Stats for income y					Stats for growth g				
		From	To	Av	Std	Se	Min	Max	Av	std	SE
1	1,417	6.078	7.585	7.187	0.287	0.008	-36.56	34.67	0.884	5.222	0.139
2	1,417	7.585	8.748	8.199	0.336	0.009	-33.67	29.58	2.322	5.529	0.147
3	1,417	8.749	9.749	9.210	0.270	0.007	-31.68	34.51	2.857	4.952	0.132
4	1,417	9.707	11.346	10.243	0.334	0.009	-15.93	14.73	2.373	3.019	0.080
All	5,668	6.078	11.345	8.700	1.191	0.016	-36.56	34.67	2.109	4.837	0.064

Av is the arithmetic average, *Std* is the standard deviation, and *SE* is standard error. As the growth rate has a hump-shaped transition path the Av(g) column first increase and then decrease. The differences between the Av(g)s are significant.
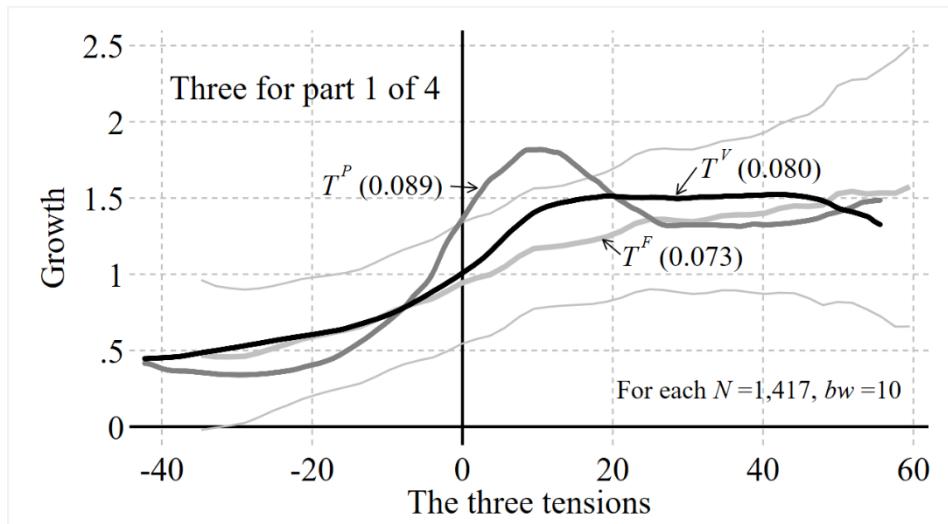
Figure A2a

Three curves

Part 1

[Figure 4]

Figure A2b

Three curves

Part 2

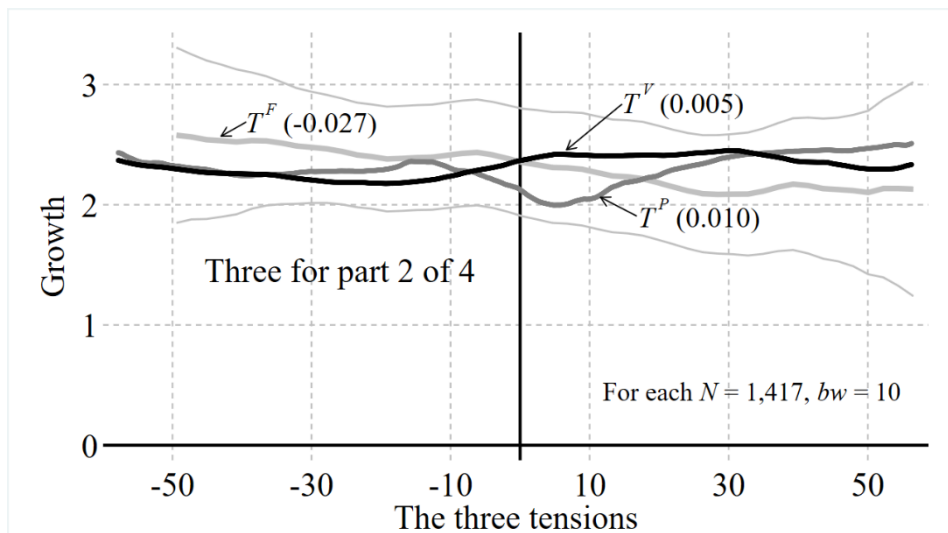[Figure 5]
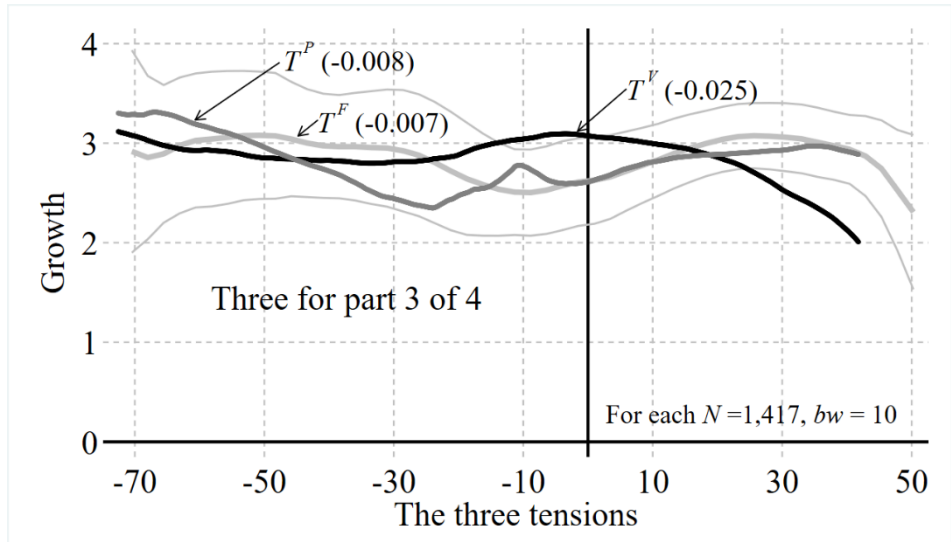

2

Figure A2c

Three curves

Part 3

[Figure 6]

T^P (-0.008)

T^F (-0.007)

T^V (-0.025)

Growth

Three for part 3 of 4

For each N =1,417, bw = 10

-70   -50   -30   -10   10   30   50

The three tensions

Figure A2d

Three curves

Part 4

[Figure 7]

Three for part 4 of 4

T^F (-0.111)

T^P (-0.102)

T^V (-0.131)

Growth

For each N = 1,417, bw = 10

-80   -60   -40   -20   0   20

The three tensions
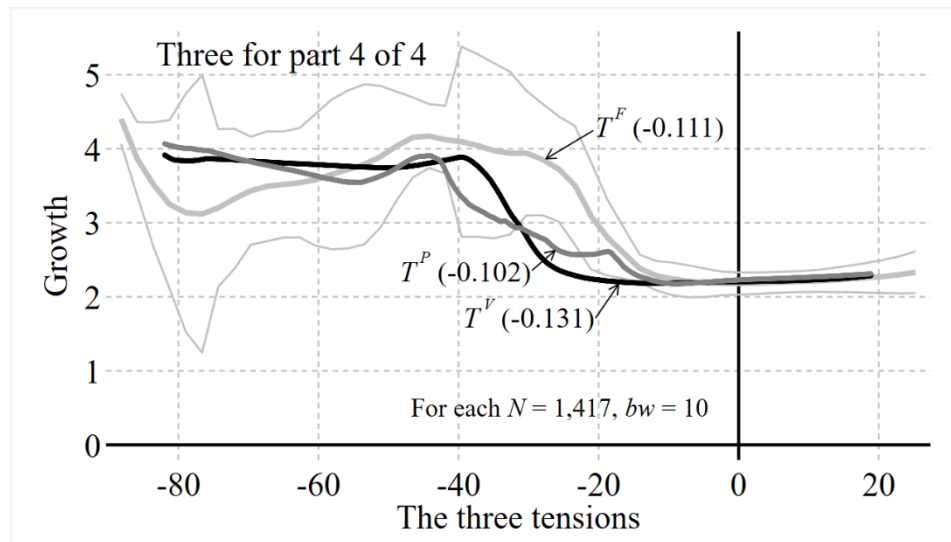
An interesting point is if the results for the three democracy indices differ. If the three pictures for the indices are considered throughout the paper it is obvious that the grand pattern in the indices are the same. That is, if a paper is made using one index, the default is that much the same results would appear if another index was used.

The main differences are that the *P*-index has a more two topped distribution – both for the index itself and for the tension variable T^P. The *V*-index is more compressed.

2 Individual curves for all 5,668 observations

Figure A3a
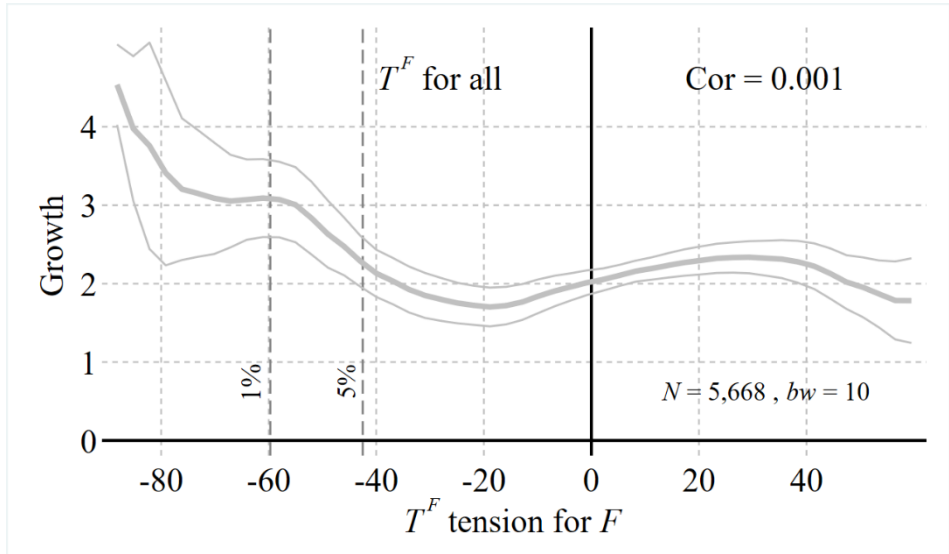
For T^F

[Figure 3a]

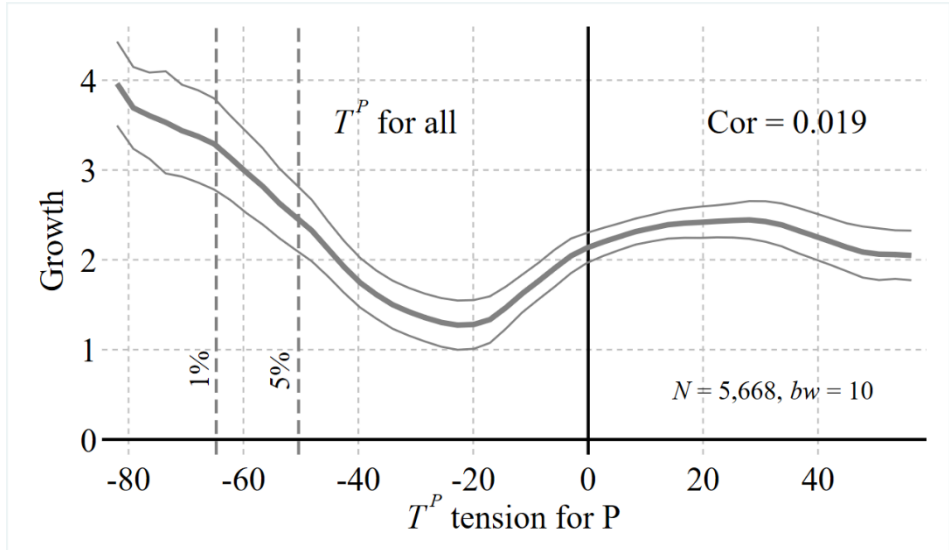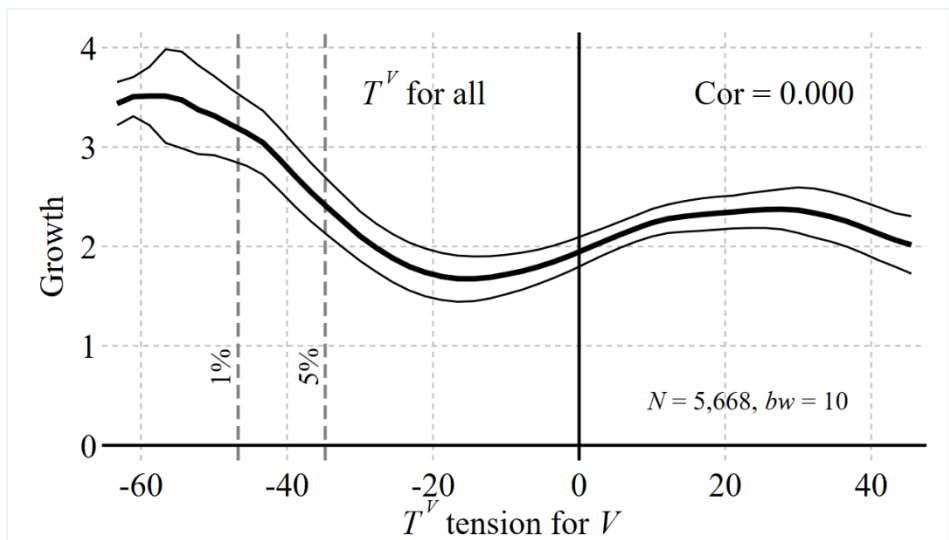

Figure A3b

For T^P

[Figure 3b]

Figure A3c

For T^V

[Figure 3c]

The intervals to the left of dashed vertical lines are to show where 1% and 5% of the observations are. It is obvious that these observations are thin.

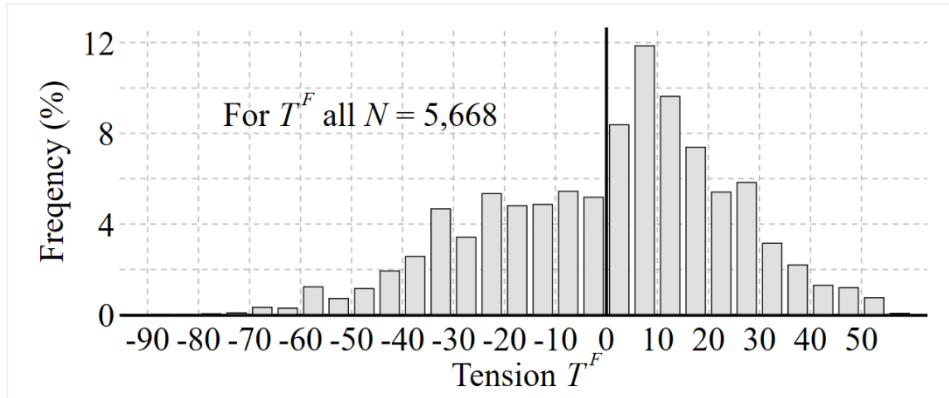Histograms for all observations

Figure A4a

For T^F

Figure A4b
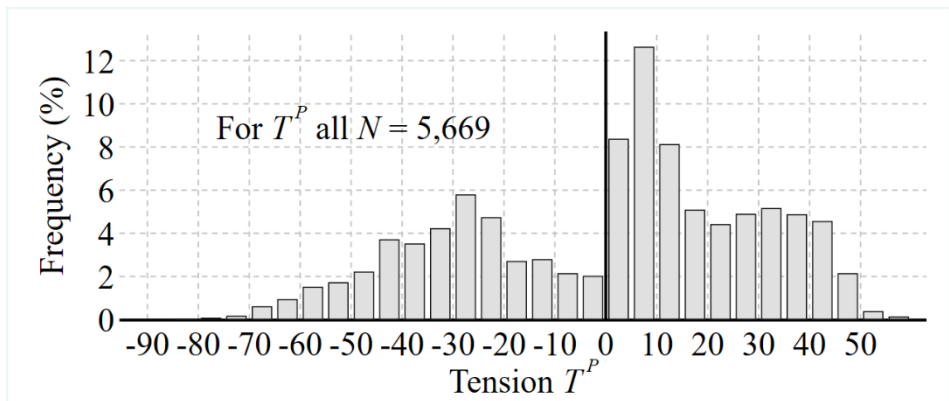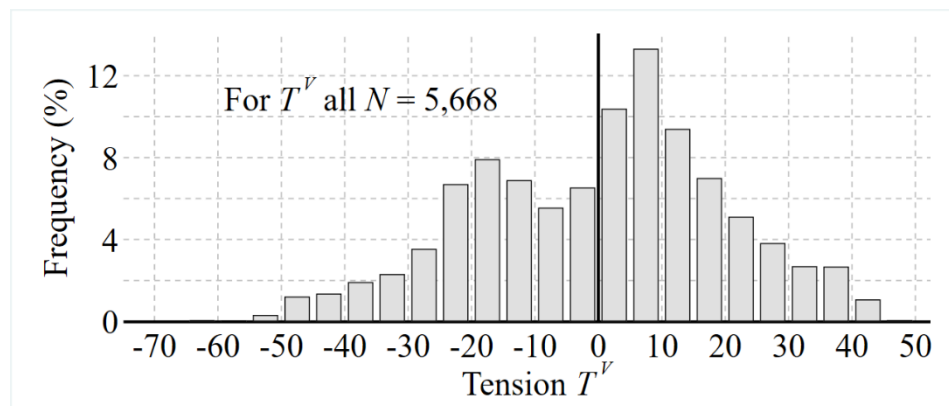
For T^P

Figure A4c

For T^V

The distributions are all a bit two topped as argued in the text. The problem is particularly strong for the T^P-variable as is also reflected on the kernel-curve.
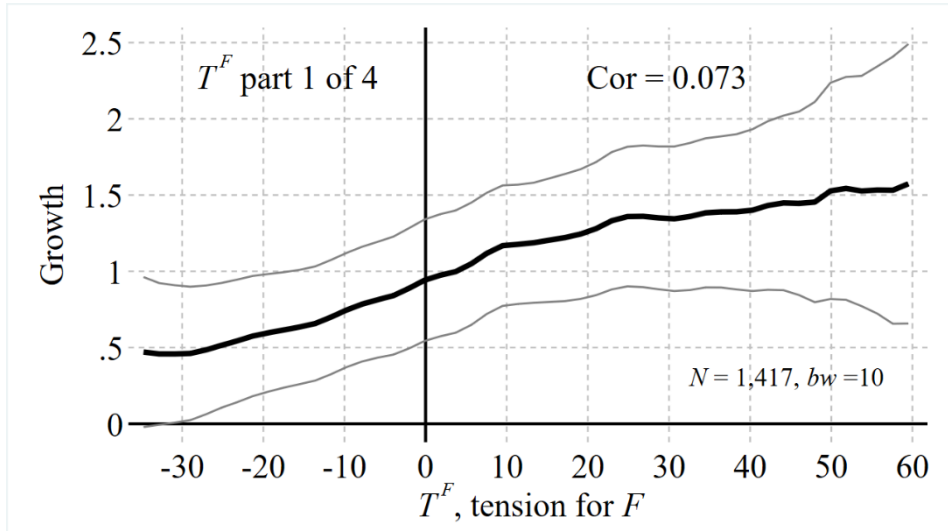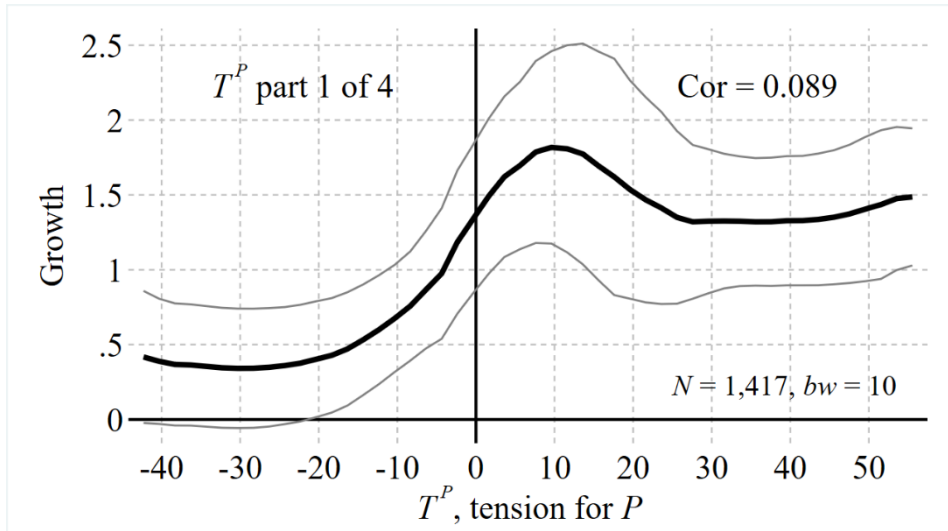
3   Part 1: first quarter by *y, N* = 1,417
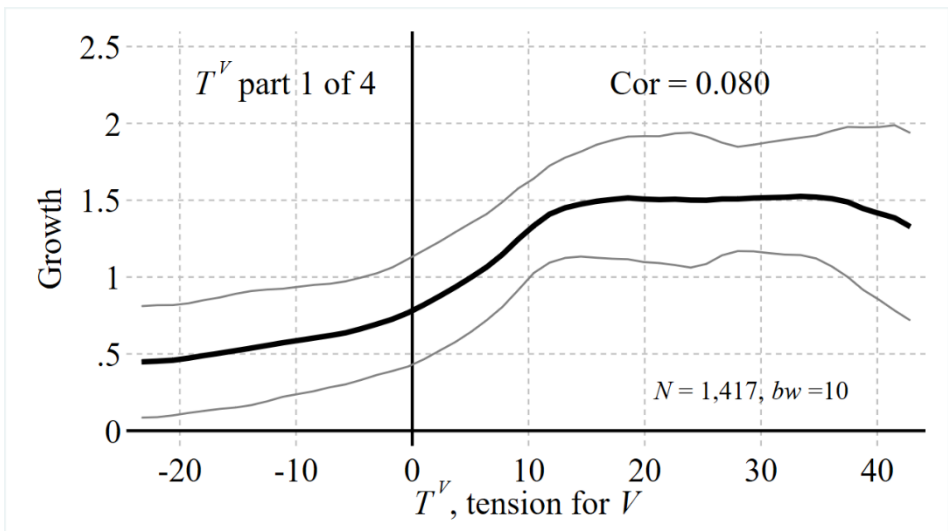
Figure A5a

For *F*

Figure A5b

For *P*

Figure A5c

For *V*

Histograms for part 1

Figure A6a

For T^F

For T^F part 1 $N = 1,417$

(y-axis: Frequency (%); x-axis: Tension T^F)

Figure A6b

For T^P

For T^P part 1 $N = 1,417$

(y-axis: Frequency (%); x-axis: Tension T^P)

Figure A6c

For T^V

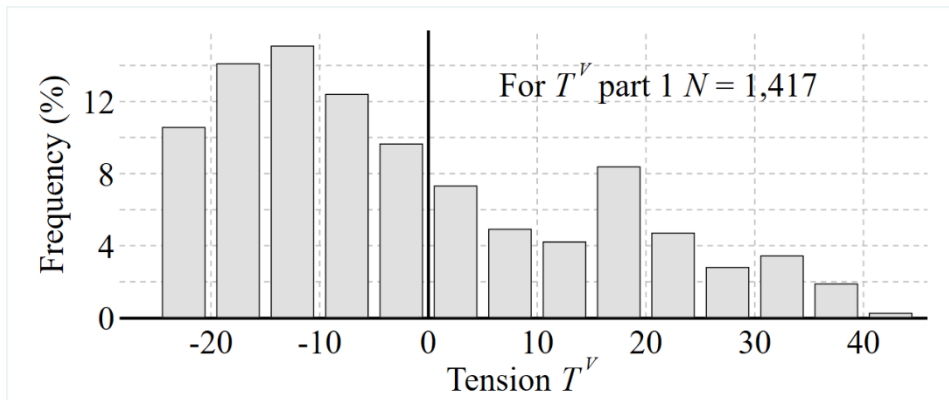For T^V part 1 $N = 1,417$

(y-axis: Frequency (%); x-axis: Tension T^V)
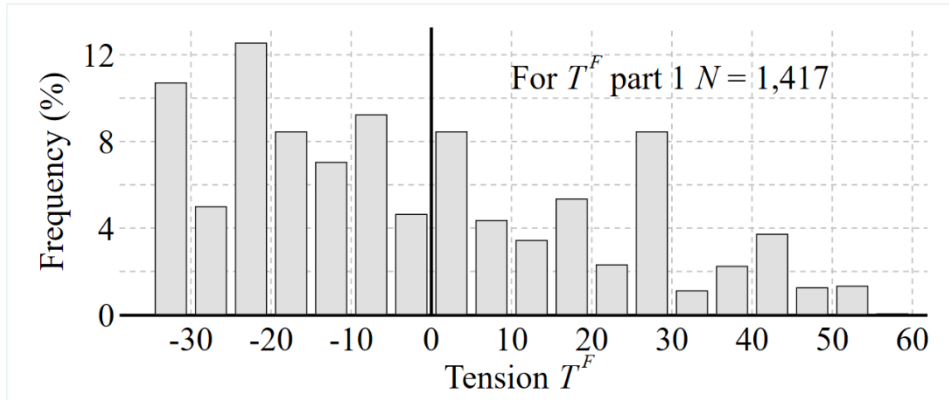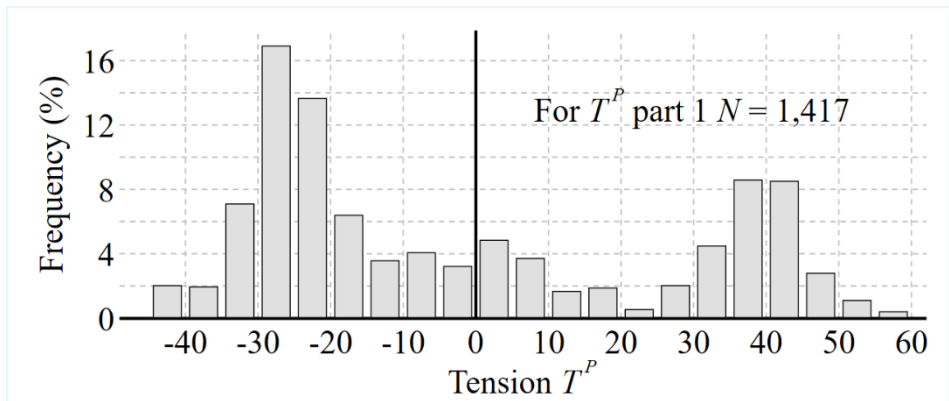
The distributions are upward skewed, with a tail for large positive values. T^P has a small second top around 40. This accounts for the strange top in the middle on Figure 5b.

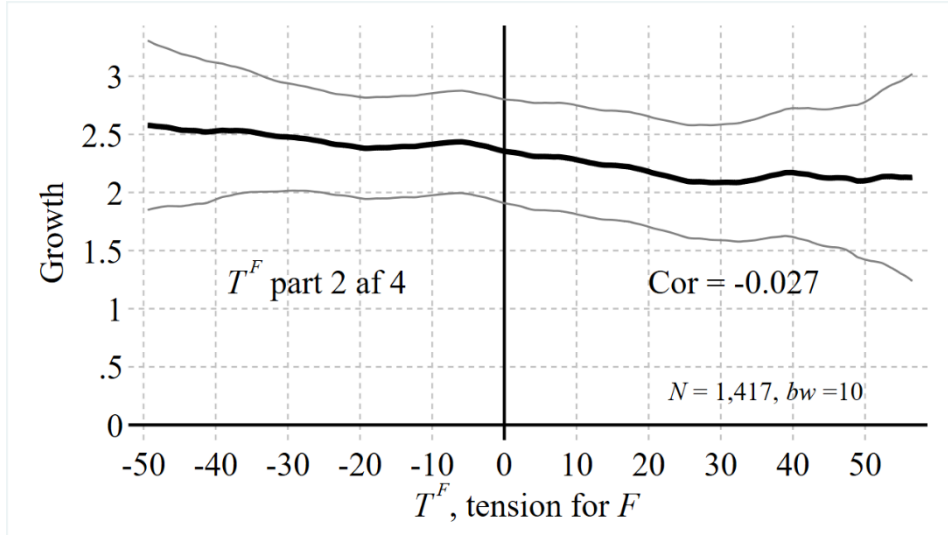# 4   Part 2: second quarter by *y*, $N = 1,417$
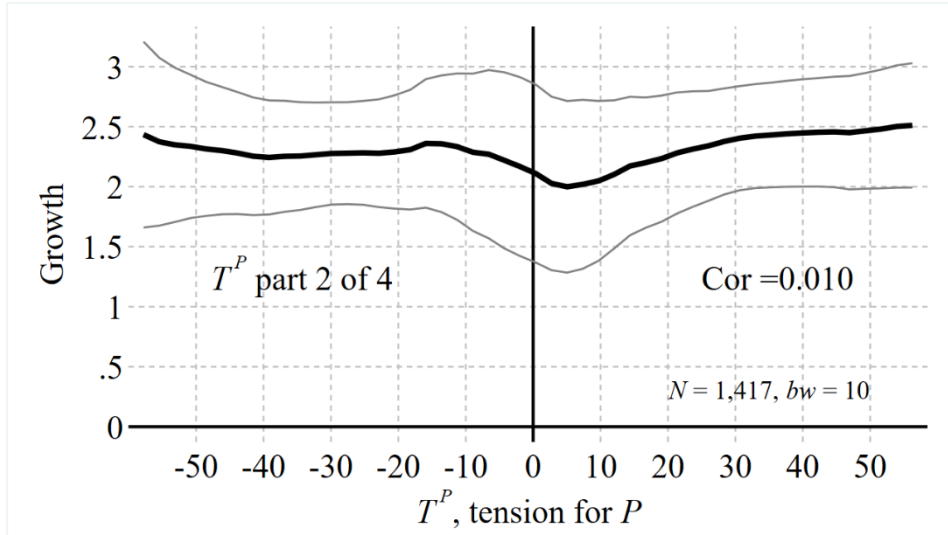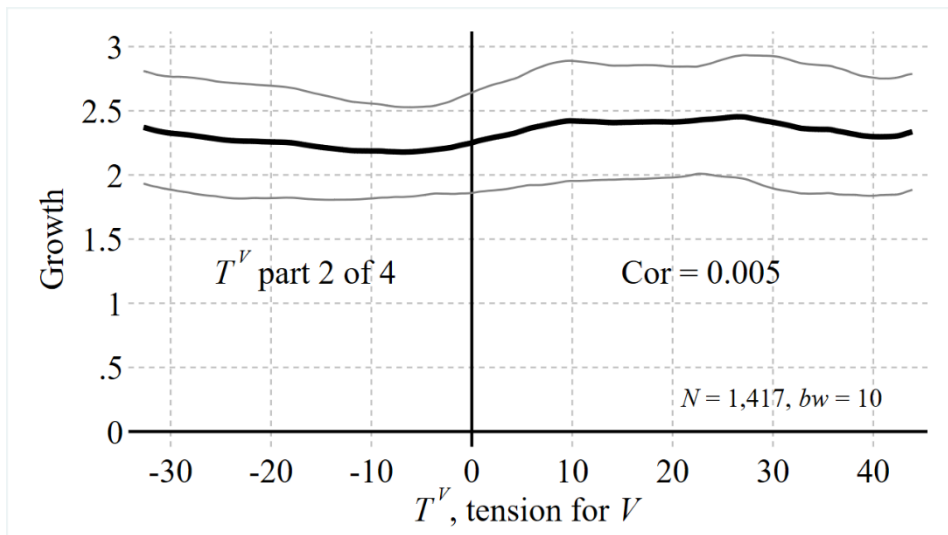
Figure A7a

For T^F

Figure A7b

For T^P

Figure A7c

For T^V

Histograms for part 2
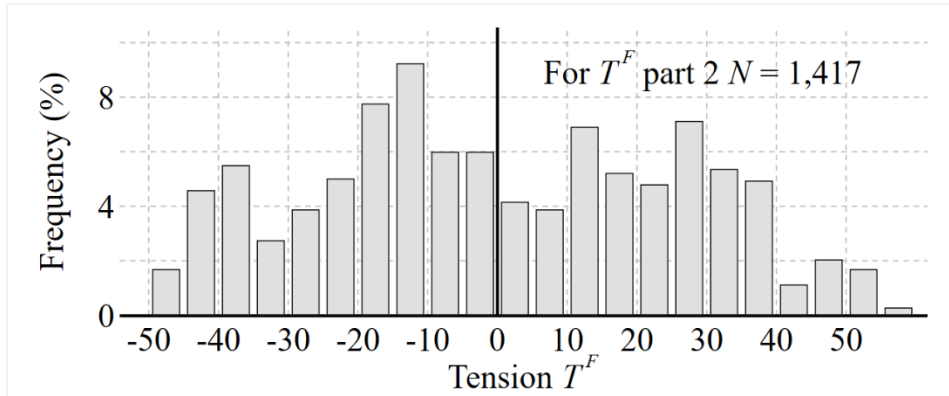
Figure A8a

For T^F

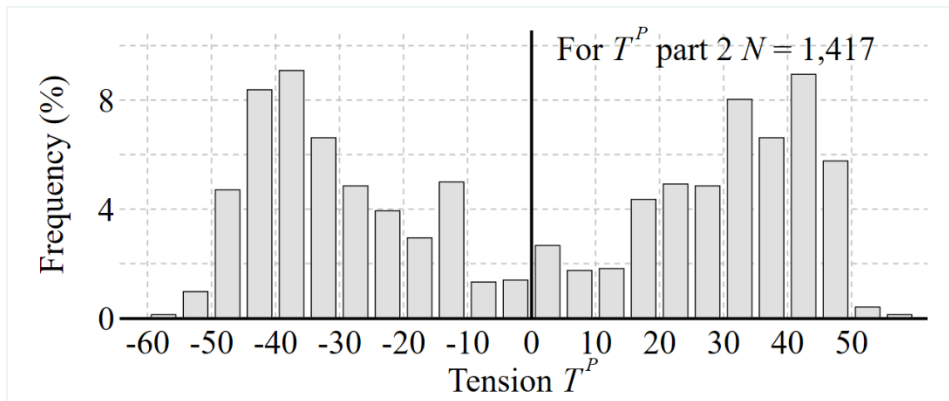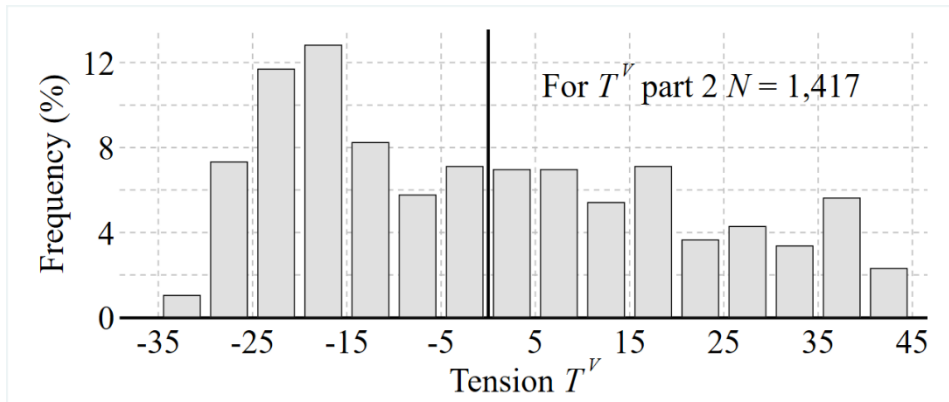
Figure A8b

For T^P

Figure A8c

For T^V

For all 3 versions of Figure 7 it is easy to draw a horizontal line within the confidence interval. Thus, it cannot be rejected that there is no connection between T^X and g. Note that Figure 8b is clearly two-humped. This may explain the shift in the confidence interval on Figure 7b.

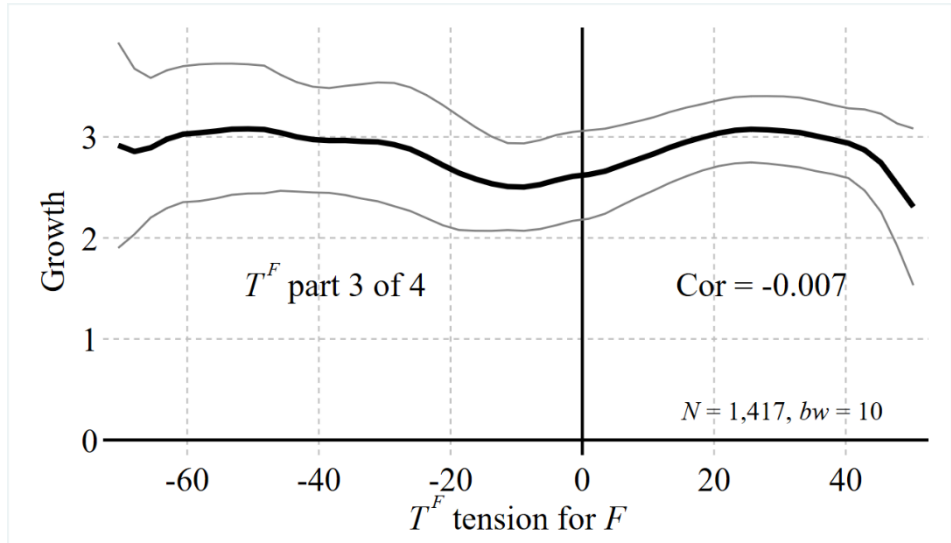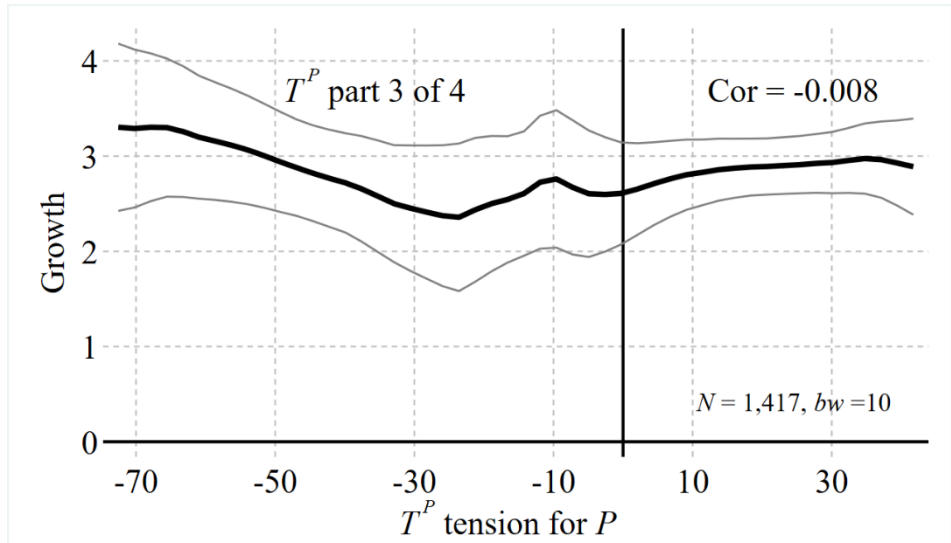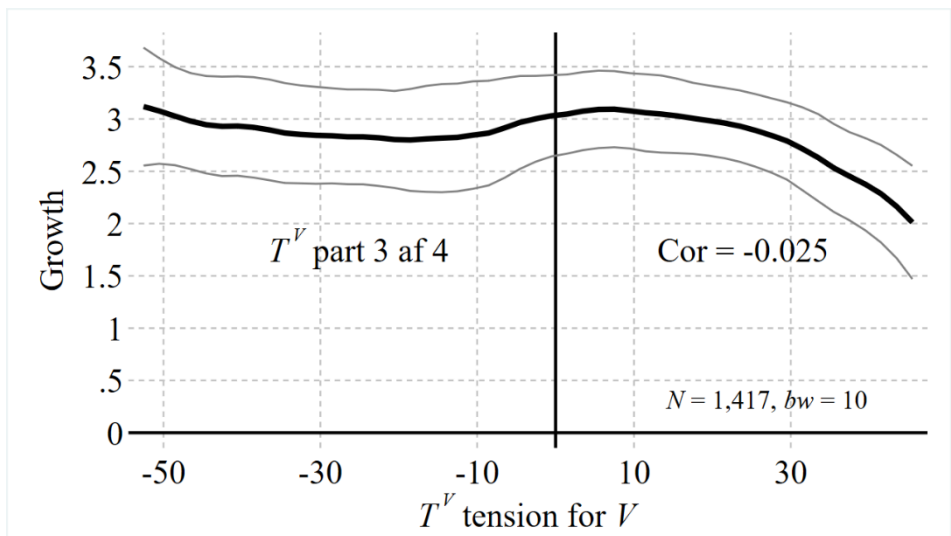## 5   Part 3: third quarter by *y*, *N* = 1,417

Figure A9a

For T^F

T^F part 3 of 4

Cor = -0.007

N = 1,417, bw = 10

T^F tension for F

Figure A9b

For T^P

T^P part 3 of 4

Cor = -0.008

N = 1,417, bw =10

T^P tension for P

Figure A9c

For T^V

T^V part 3 af 4

Cor = -0.025

N = 1,417, bw = 10

T^V tension for V

Histograms for part 3

Figure A10a

For T^F

For T^F part 3 $N = 1,417$
Frequency (%) — Tension T^F

Figure A10b

For T^P

For T^P part 3 $N = 1,417$
Frequency (%) — Tension T^P
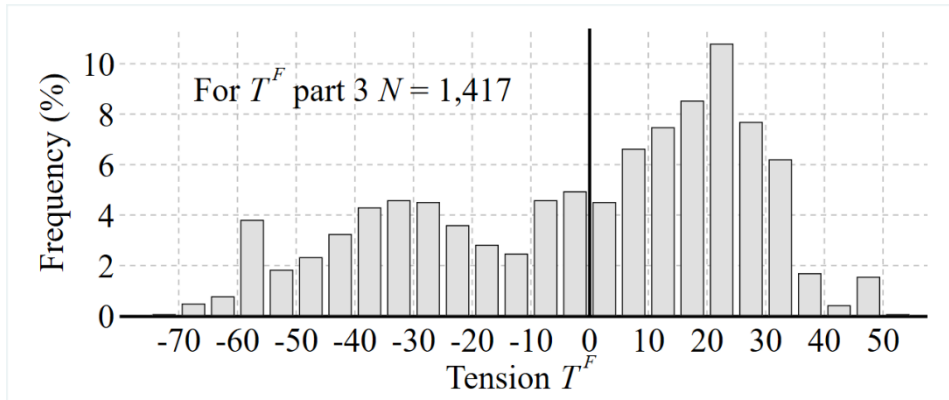
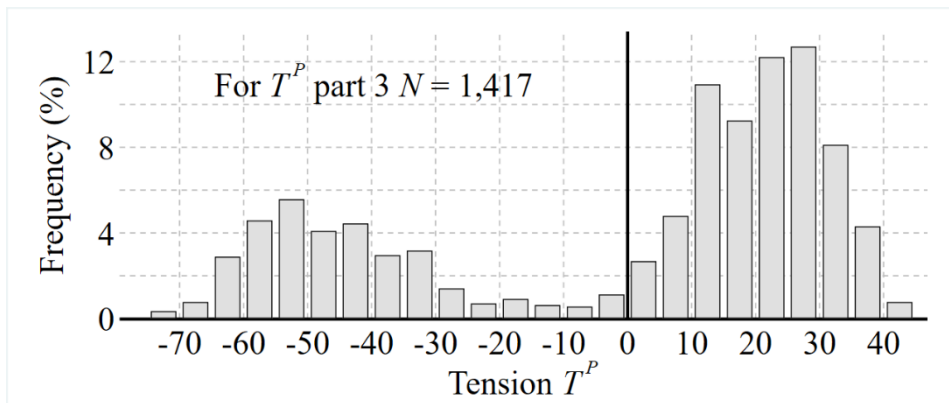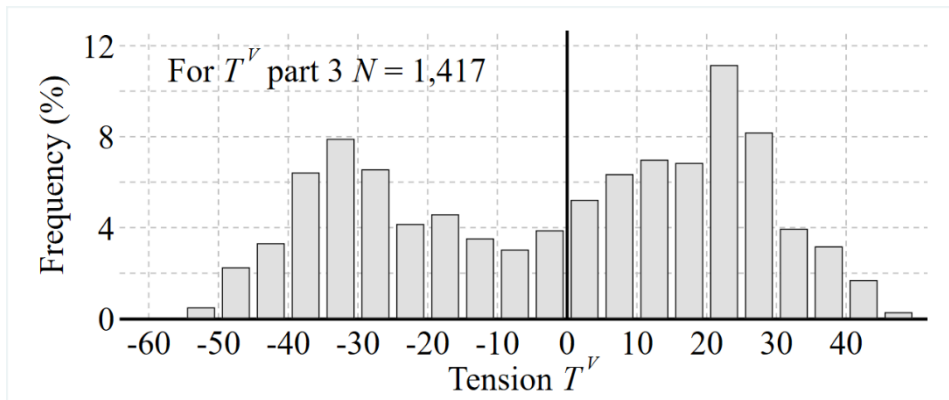Figure A10c

For T^V

For T^V part 3 $N = 1,417$
Frequency (%) — Tension T^V

As for part 2 it is possible to draw a horizontal curve between the confidence intervals. It is easily done for Figures 9a and b, but only just passible for 9c. Thus, it cannot be rejected that there is no connection between T^X and g. Here all three histograms are two-topped, but it has no effect on the kernels.

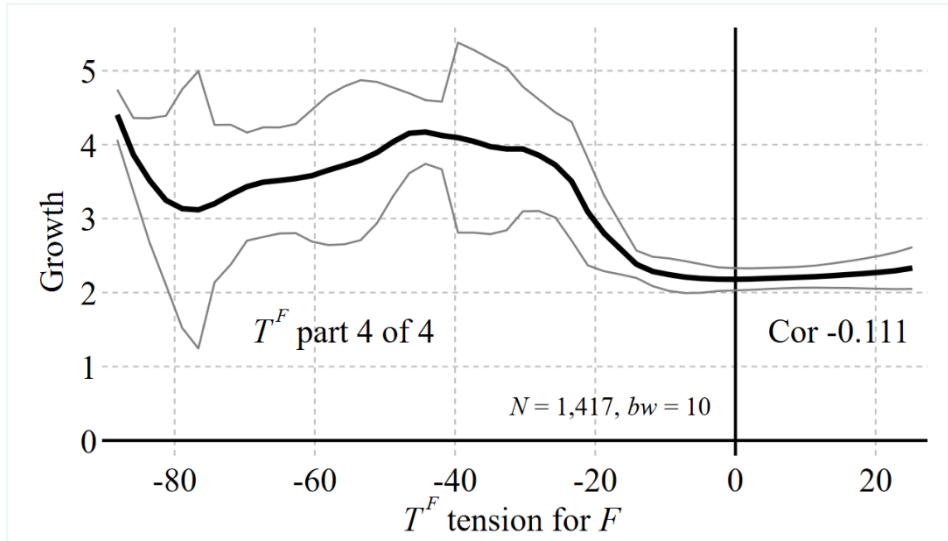## 6 Part 4: fourth quarter by *y*, *N* = 1,417

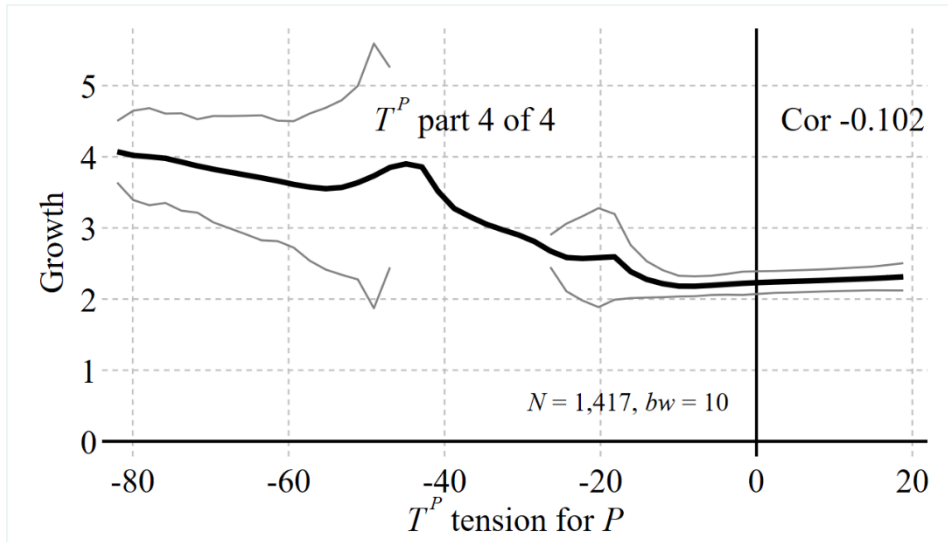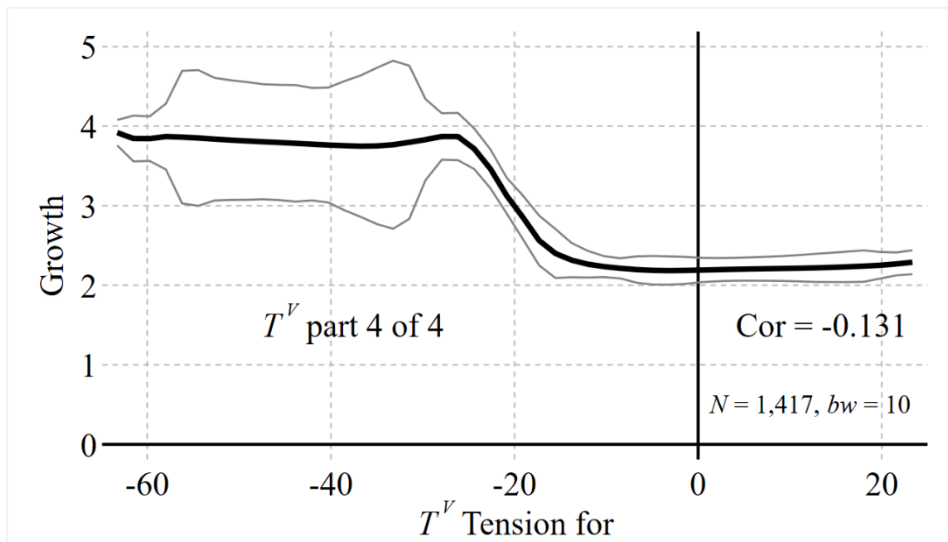Figure A11a

For T^F

Figure A11b

For T^P

Figure A11c

For T^V

Histograms for part 4

Figure A12a

For T^F

[Figure 8a]

For T^F part 4 $N = 1,417$
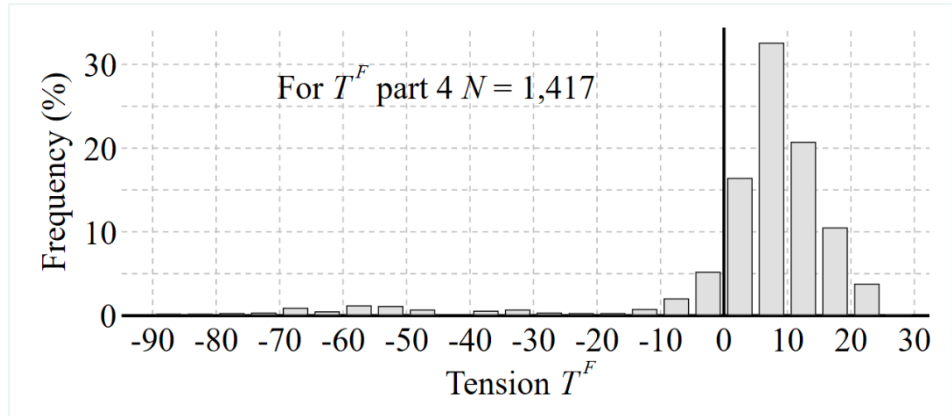
Figure A12b

For T^P

[Figure 8b]

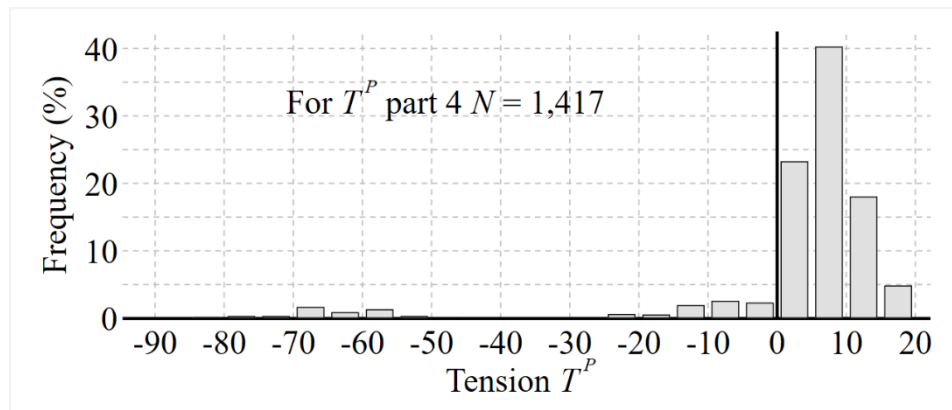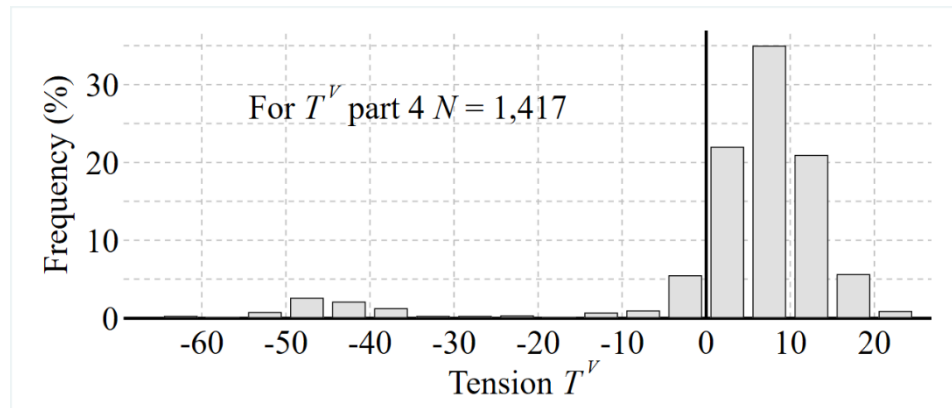For T^P part 4 $N = 1,417$

Figure A12c

For T^V

[Figure 8c]

For T^V part 4 $N = 1,417$

The histograms for part 4 look remarkably different from the previous ones, as already seen from the scale of the vertical axis. Most observations are close together at small positive values, but they do a long tail of negative values.

For T^P there is even an interval from -50 to -25 without observations. This gives an interval with no confidence intervals for this interval on Figure 11b.

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