

# Online Appendix of Full Tables for:

Characteristics and Implications of Chinese Macroeconomic Data Revisions

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December 1, 2017

The full dataset is available at [http://home.gwu.edu/~tsinc/china\\_rtd.xlsx](http://home.gwu.edu/~tsinc/china_rtd.xlsx)

Link back to this document: [http://home.gwu.edu/~tsinc/china\\_rtd.pdf](http://home.gwu.edu/~tsinc/china_rtd.pdf)

Table 1: Example of the Real Time Dataset Structure: Chinese Real GDP Growth Rates

Yearbook Date	1994	...	2010	2011	2012	2013	2014	2015	2016
Activity Date									
1979	7.6	...	7.6	7.6	7.6	7.6	7.6	7.6	7.6
1980	7.8	...	7.8	7.8	7.8	7.8	7.8	7.8	7.8
...	...	...	...	...	...	...	...	...	...
2009	n/a	...	9.1	9.2	9.2	9.2	9.2	9.2	9.4
2010	n/a	...	n/a	10.4	10.4	10.4	10.4	10.6	10.6
2011	n/a	...	n/a	n/a	9.3	9.3	9.3	9.5	9.5
2012	n/a	...	n/a	n/a	n/a	7.7	7.7	7.8	7.9
2013	n/a	...	n/a	n/a	n/a	n/a	7.7	7.7	7.8
2014	n/a	...	n/a	n/a	n/a	n/a	n/a	7.3	7.3
2015	n/a	...	n/a	n/a	n/a	n/a	n/a	n/a	6.9

Table 2: Examples of the First, Second, and Latest Releases: Chinese Real GDP Growth Rates

Activity Date	First Release	Second Release	2016 Yearbook (Latest Release)
1993	13.4	13.5	13.5
1994	11.8	12.7	12.7
...	...	...	...
2010	10.4	10.4	10.4
2011	9.3	9.3	9.3
2012	7.7	7.7	7.8
2013	7.7	7.7	7.8

Table 3: Descriptive Statistics of First Release Data (Growth Rates)

	GDP	GNP	PRIMARY	SECONDARY	TETRTIARY
Mean	9.20	9.41	4.14	10.58	8.63
Median	9.11	9.20	4.02	10.11	8.22
Maximum	13.41	15.11	7.49	17.38	12.55
Minimum	6.91	3.30	2.27	6.09	7.30
Std. Dev	1.75	2.57	1.26	2.63	1.27
Skewness	0.70	0.20	0.61	0.64	1.58
Kurtosis	-0.08	0.58	0.35	0.68	2.92
Observations	23	34	31	22	23
Sample	1993-2015	1982-2015	1985-2015	1994-2015	1993-2015

Table 4: Descriptive Statistics of Latest Available (2016 Yearbook) Data (Growth Rates)

	GDP	GNP	PRIMARY	SECONDARY	TETRTIARY
Mean	9.69	9.68	4.48	11.06	10.65
Median	9.40	9.38	4.06	10.47	10.08
Maximum	15.14	15.36	12.95	21.02	19.39
Minimum	3.91	4.16	-1.41	1.87	2.67
Std. Dev	2.70	2.71	2.55	4.34	3.28
Skewness	0.04	0.11	1.38	0.18	0.52
Kurtosis	-0.09	-0.10	3.97	0.22	1.20
Observations	37	37	37	37	37
Sample	1979-2015	1979-2015	1979-2015	1979-2015	1979-2015

Table 5: Descriptive Statistics of First Revisions (in percentage points)

	GDP	GNP	PRIMARY	SECONDARY	TERTIARY
Mean (Newey-West SE)	0.22** (0.09)	0.20* (0.12)	-0.09 (0.10)	0.08 (0.10)	0.59*** (0.14)
Mean Absolute Revision	0.23	0.63	0.16	0.22	0.60
Median	0.08	0.20	0.00	0.00	0.43
Maximum	1.10	4.89	0.68	1.27	1.74
Minimum	-0.04	-1.83	-2.99	-0.30	-0.04
Std. Dev	0.33	1.08	0.57	0.40	0.53
Skewness	1.38	2.18	-4.52	1.87	0.56
Kurtosis	3.83	12.22	24.00	5.73	2.12
Observations	22	33	30	21	22
Sample	1993-2014	1982-2014	1985-2014	1994-2014	1993-2014

\*, \*\*, \*\*\* Statistically significant at 10%, 5%, and 1% respectively

Table 6: Descriptive Statistics of Revisions to 2016 Yearbook (in percentage points)

	GDP	GNP	PRIMARY	SECONDARY	TERTIARY
Mean (Newey-West SE)	0.68*** (0.16)	0.53*** (0.18)	-0.24 (0.16)	0.23 (0.14)	1.75*** (0.37)
Mean Absolute Revision	0.68	0.93	0.31	0.35	1.76
Median	0.50	0.54	-0.11	0.12	1.97
Maximum	2.30	2.53	0.63	1.66	3.52
Minimum	0.03	-1.53	-4.55	-0.34	-0.05
Std. Dev	0.57	0.99	0.85	0.46	1.19
Skewness	1.40	-0.06	-4.98	1.57	-0.24
Kurtosis	2.01	-0.46	26.20	4.02	-1.25
Observations	21	32	29	20	21
Sample	1993-2013	1982-2013	1985-2013	1994-2013	1993-2013

\*, \*\*, \*\*\* Statistically significant at 10%, 5%, and 1% respectively

Table 7: Descriptive Statistics of U.S. Real GDP Data (Growth Rates)

	First Release	Latest Available
Mean	2.40	2.50
Median	2.76	2.70
Maximum	4.23	4.70
Minimum	-2.63	-2.80
Std. Dev.	1.67	1.71
Skewness	-1.55	-1.31
Kurtosis	2.71	2.48
Observations	25	25
Sample	1991-2015	1991-2015

Table 8: Descriptive Statistics of US Real GDP Revisions (in percentage points)

	First Revision	Latest Revision
Mean (Newey- West SE)	-0.18 (0.09)	0.03 (0.16)
Mean Absolute Revision	0.31	0.49
Median	-0.12	-0.10
Maximum	0.69	1.45
Minimum	-0.85	-0.73
Std. Dev.	0.37	0.61
Skewness	0.27	0.74
Kurtosis	0.11	-0.4
Observations	24	24
Sample	1991-2014	1991-2014

Table 9: Comparison of China and U.S. Real GDP Mean Absolute Revisions  
Relative to Mean Growth Rate of Initial Release

	U.S. First Revision	China First Revision	U.S. Latest Revision	China Latest Revision
<u>(Mean Absolute Revision)</u> (Mean Initial Release)	0.13	0.03	0.20	0.07

Table 10: Regression of First Revisions on Lag of First Revision

	GDP	GNP	PRIMARY	SECONDARY	TERTIARY
Constant (Newey- West SE)	0.14* (0.07)	0.27 (0.17)	0.004 (0.03)	0.02 (0.08)	0.45* (0.24)
Coefficient on lag (Newey- West SE)	0.39* (0.21)	-0.43*** (0.15)	-0.12*** (0.01)	0.20 (0.17)	0.25 (0.23)
p value of rationality test	0.01**	0.02**	<0.01***	0.53	<0.01***
Sample	1994-2014	1983-2014	1986-2014	1995-2014	1994-2014

\*, \*\*, \*\*\* Statistically significant at 10%, 5%, and 1% respectively

Table 11: Regression of First Revisions on Lag of Revision Latest Available Data

	GDP	GNP	PRIMARY	SECONDARY	TERTIARY
Constant (Newey- West SE)	0.31** (0.14)	0.46** (0.17)	-0.09** (0.03)	0.10 (0.10)	0.34 (0.30)
Coefficient on lag (Newey- West SE)	0.52** (0.21)	0.06 (0.20)	-0.0007 (0.01)	0.42*** (0.12)	0.74*** (0.14)
p value of rationality test	<0.01***	0.02**	0.05*	0.01**	<0.01***
Sample	1994- 2013	1983-2013	1986-2013	1995-2013	1994-2013

\*, \*\*, \*\*\* Statistically significant at 10%, 5%, and 1% respectively

Table 12: Regression of First Revisions on First Release

	GDP	GNP	PRIMARY	SECONDARY	TERTIARY
Constant (Newey- West SE)	-0.62 (0.34)	0.15 (0.47)	0.55 (0.51)	-0.68** (0.29)	-0.15 (0.71)
Coefficient on initial release (Newey- West SE)	0.09 (0.04)	0.01 (0.05)	-0.15 (0.14)	0.07** (0.03)	0.08 (0.08)
p value of rationality test	0.01**	0.14	0.56	0.08*	<0.01***
Sample	1993-2014	1982-2014	1985-2014	1994-2014	1993-2014

\*, \*\*, \*\*\* Statistically significant at 10%, 5%, and 1% respectively

Table 13: Regression of Revisions to Latest Available on First Release

	GDP	GNP	PRIMARY	SECONDARY	TERTIARY
Constant (Newey- West SE)	-0.61 (0.93)	0.95* (0.61)	0.75 (0.71)	-0.46 (0.37)	0.31 (2.09)
Coefficient on initial release (Newey- West SE)	0.14 (0.11)	-0.04 (0.07)	-0.24 (0.20)	0.06* (0.03)	0.16* (0.24)
p value of rationality test	<0.01***	<0.01***	0.28	0.18	<0.01***
Sample	1993-2013	1982-2013	1985-2013	1994-2013	1993-2013

\*, \*\*, \*\*\* Statistically significant at 10%, 5%, and 1% respectively

Table 14: Summary of Well-Behaved Revisions Tests for First Revisions

	China					US
	GDP	GNP	PRIMARY	SECONDARY	TERTIARY	GDP
Mean (Newey- West SE)	0.22** (0.09)	0.20* (0.12)	-0.09 (0.10)	0.08 (0.10)	0.59*** (0.14)	-0.18 (0.09)
$\frac{sd(\text{revision})}{sd(\text{second release})}$	0.16	0.38	0.26	0.12	0.36	0.21
Predictability of Revision?	Lag of revision** First release**	Lag of revision**	Lag of revision***	First release*	First release***	None

\*, \*\*, \*\*\* Statistically significant at the 10%, 5%, and 1% level respectively

Table 15: Modified Holden Peel (1990) with Slowdown Dummy for First Revisions

	GDP	GNP	PRIMARY	SECONDARY	TERTIARY
Constant (Newey- West SE)	0.24*** (0.09)	0.25 (0.17)	-0.10 (0.12)	0.09 (0.10)	0.58*** (0.17)
Coefficient on dummy (Newey- West SE)	-0.08 (0.17)	-0.26 (0.36)	0.07 (0.13)	-0.08 (0.21)	0.07 (0.22)
p value of rationality test	0.06*	0.24	0.45	0.62	<0.01***
Sample	1993-2014	1982-2014	1985-2014	1994-2014	1993-2014

\*, \*\*, \*\*\* Statistically significant at 10%, 5%, and 1% respectively

Table 16: Modified Holden Peel (1990) with Slowdown Dummy for Revisions to Latest Available

	GDP	GNP	PRIMARY	SECONDARY	TERTIARY
Constant (Newey- West SE)	0.76*** (0.19)	0.51*** (0.22)	-0.27 (0.19)	0.28** (0.14)	1.85*** (0.47)
Coefficient on dummy (Newey- West SE)	-0.38** (0.20)	0.14 (0.29)	0.17 (0.19)	-0.29* (0.19)	-0.49 (0.51)
p value of rationality test	<0.01***	<0.01***	0.08*	0.09*	<0.01***
Sample	1993-2013	1982-2013	1985-2013	1994-2013	1993-2013

\*, \*\*, \*\*\* Statistically significant at 10%, 5%, and 1% level

Table 17: Summary of Well-Behaved Revisions Tests for Revisions to Latest Available Data

	China					US
	GDP	GNP	PRIMARY	SECONDARY	TERTIARY	GDP
Mean (Newey- West SE)	0.68*** (0.16)	0.53*** (0.18)	-0.24 (0.16)	0.23 (0.14)	1.75*** (0.37)	0.03 (0.16)
$\frac{sd(revision)}{sd(latest\ data)}$	0.21	0.36	0.33	0.11	0.36	0.35
Predictability of Revision?	Lag of revision*** First release***	Lag of revision** First release***	Lag of revision*	Lag of revision**	Lag of revision*** First release***	Lag of revision***

\*, \*\*, \*\*\* Statistically significant at the 10%, 5%, and 1% level respectively

Figure 1: Chinese Real GDP Growth

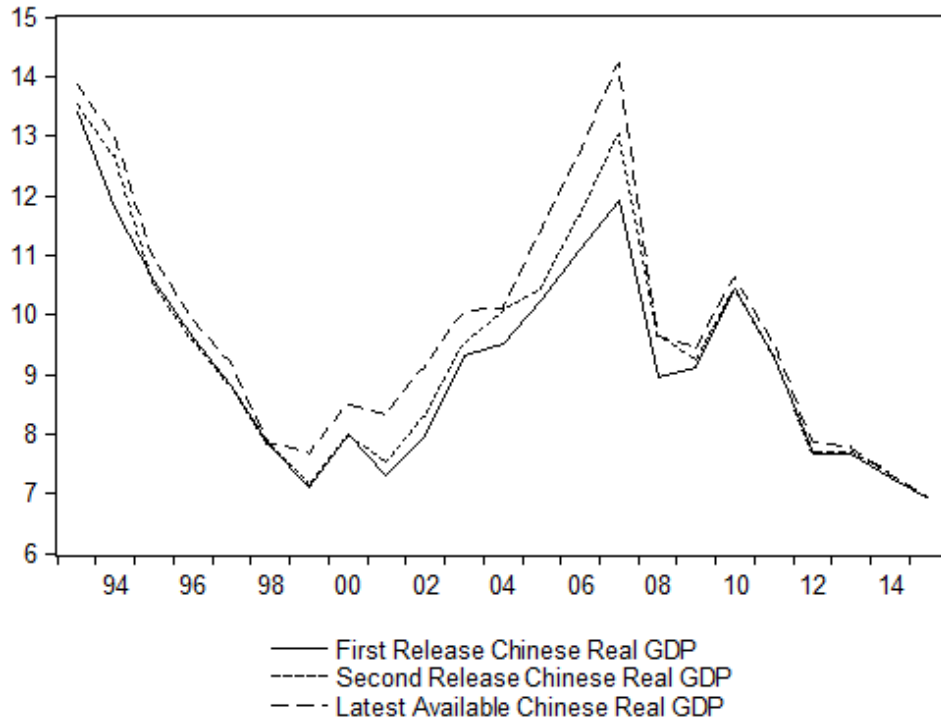




Figure 2: Chinese Real GNP Growth

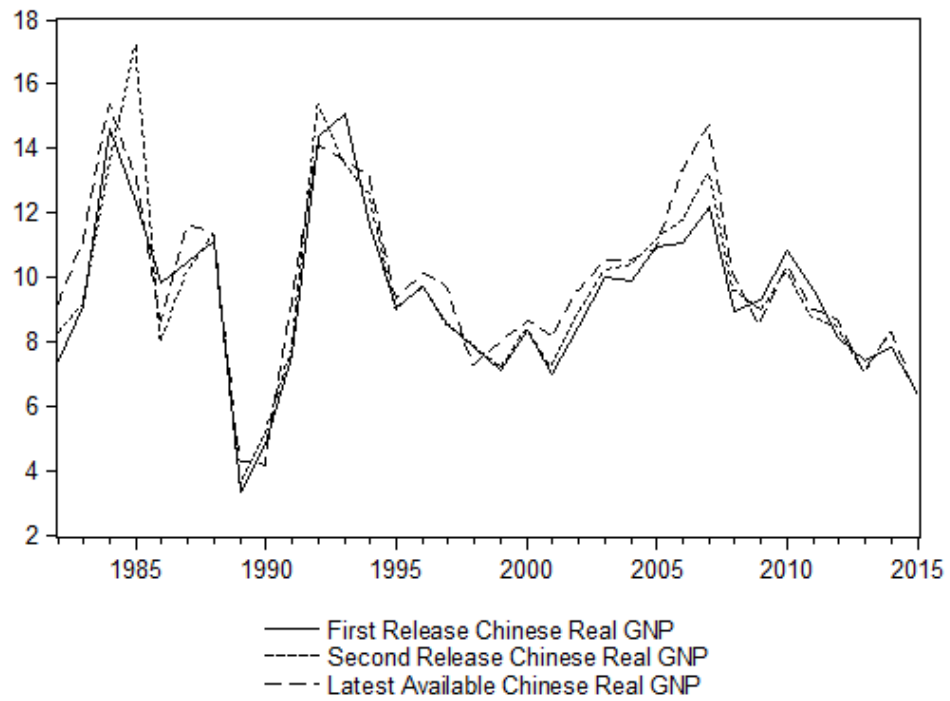


Figure 3: Chinese Primary Sector Growth

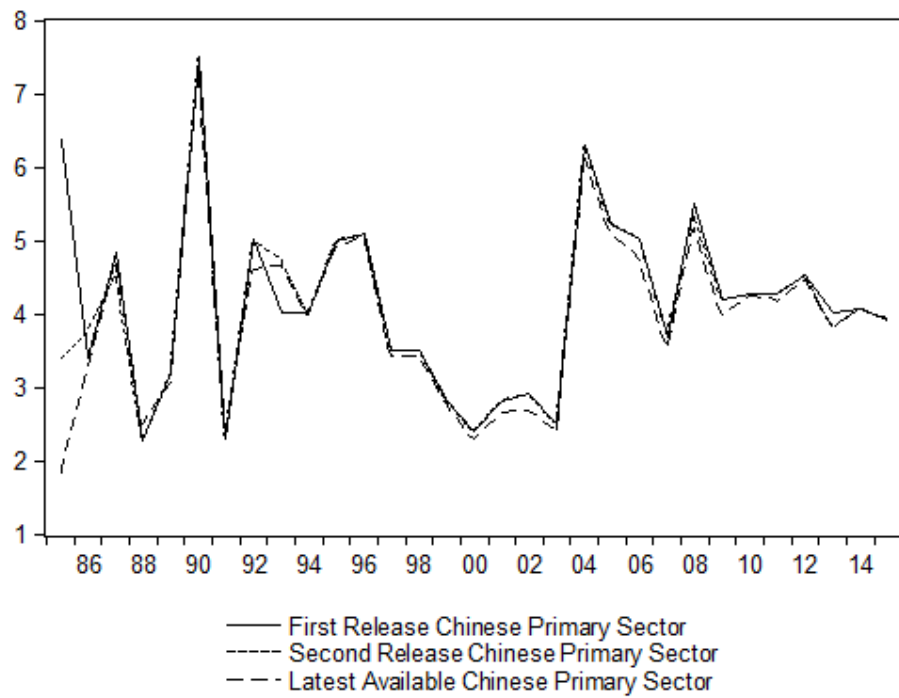


Figure 4: Chinese Secondary Sector Growth

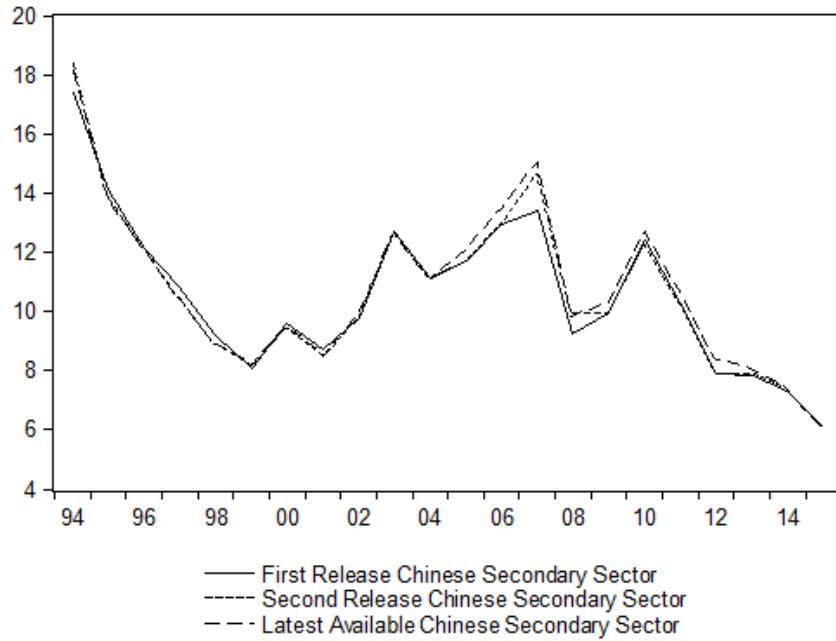


Figure 5: Chinese Tertiary Sector Growth

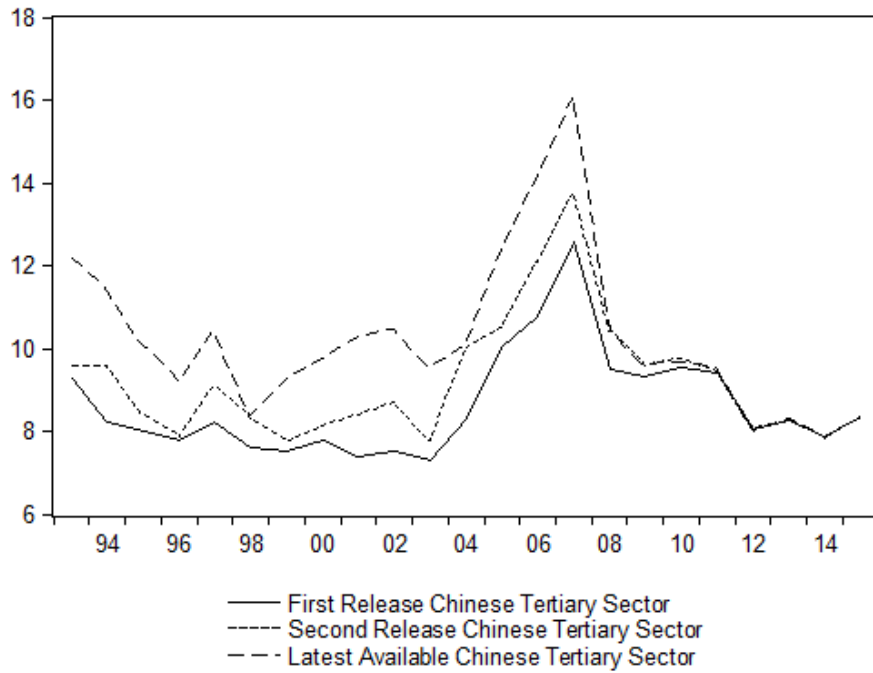


Figure 6: U.S. Real GDP Growth

