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Shirley Hsuan Hsieh

George Washington University

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Institute for International Economic Policy
1957 E St. NW, Suite 502
Voice: (202) 994-5320
Fax: (202) 994-5477
Email: **iiep@gwu.edu**
Web: **www.gwu.edu/~iiep**

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Abstract

This paper examines the Chinese macroeconomic data revisions at the provincial level. Various characteristics of the data revisions are identified. Do provincial data revisions suggest systematic biases in the initial reports? Do these biases differ by macroeconomic variable? How do provincial data revisions compare to national data revisions? We test whether first release and second release estimates can predict the final latest estimates. We conclude that despite second release estimates capturing more information, the statistically significant F-test rejects the Mincer-Zarnowitz joint test of unbiasedness and efficiency for both the first and second releases. Lastly, the direction of the first and second revisions suggests a general trend of underestimation in the provincial initial reports.

I. Introduction

In the decade beginning in 2000, China became the top contributor to the growth of global GDP (Lin, 2011). With the growing global dependence on the macroeconomic performance of China, the quality of Chinese national and provincial macroeconomic data has come under increasing scrutiny. The timing of available estimates to the international community has become important, as well as the magnitude and biases in early data reports. Early releases of macroeconomic data are especially important for decision-making factors for both domestic and international firms and policymakers who cannot wait for additional, presumably more reliable information (Sinclair, 2012). Thus, even though there has been substantial research on the accuracy of Chinese macroeconomic data generally, there has been little analysis of the revisions of the Chinese data as released by National Bureau of Statistics (NBS) of China. A study of the macroeconomic data revisions for China, specifically at the provincial level is a worthwhile task.

Here, I first examine China's macroeconomic data revisions, specifically at the provincial level. The methodology follows the analysis of revisions applied to US data (see Croushore, 2011) and to China's national data (see Sinclair 2012). To illustrate my econometric findings, I look at four provincial divisions in-depth: Beijing, Tianjin, Shanghai, and Inner Mongolia. These provinces were chosen to highlight the similarities and differences of their respective provincial data revisions. It is important to note that each province possesses unique characteristics: Beijing as the nation's capital, Tianjin as a second-tier province bordering the capital, Shanghai as a first-tier coastal province, and Inner Mongolia as an autonomous region. In the econometric analysis, I explore the extent of under/overestimation in the initial reports and conclude whether first or second release estimates are better predictors of the final latest available estimates. Panel data across thirty provincial divisions over 15 years (1997-2011) is the primary data set.

Furthermore, I compare the size of the bias of the provincial data revisions to the size of bias of the national data revisions at the country-level (Sinclair 2012). This comparison draws interesting observations since national estimates are not simply the summation of provincial numbers; the central tier relies on provincial data and adjusts it to calculate nationwide GDP (Holz 2002). The adjustments undertaken by the NBS are "far from uniform across sectors" and "the foundation is not publicized" (see Holz 2002). Thus, a comparison between the size of revisions between provincial and national data may provide additional insights.

The first section of this paper will introduce the data that include the 'real-time' macroeconomic dataset for China's thirty provincial divisions. The second section offers a discussion of the most common method of investigating the source of data revisions. The results section evaluates the provincial revisions and assesses the panel estimates across provinces. Lastly, the size of the bias for the province-level is examined in relation to a comparable set of national macroeconomic data revisions at the country-level. Finally, the conclusion suggests that we reject the Mincer-Zarnowitz joint hypothesis of forecast efficiency on the panel data model, and thus the two series of first and second release are inefficient estimates of the final latest estimates.

II. Literature Review

This paper draws from several different literatures on data revisions and forecasting. First, Holz's 2008 paper "China's 2004 Economic Census and 2006 Benchmark Revision of GDP Statistics: More Questions Than Answers?" provides an excellent discussion of China's National Bureau of Statistics benchmark revisions. Holz highlights the concerns of data falsification by local statistical authorities for instance, provinces using the "yet incomplete

measurement of tertiary activities to adjust tertiary sector output upward such that sectoral data add up to their desired aggregate output value". On the contrary, Holz claims that the new data validates the provincial aggregate output values and invalidate the centre's national ones instead. The NBS conducted a benchmark revision of 1978-93 data revising the tertiary sector value added of 1993 upwards by 32 percent, and thereby GDP by 10 percent. A second benchmark revision occurred in early 2006, following the 2004 economic census of the secondary sector of industry, construction and the tertiary sector, with revisions primarily to the 1993-2004 data. Year 2004 GDP was revised upward by 16.8 per cent and made China the world's fourth-largest economy as of 2006. Favoring provincial data, Holz found that pre-economic census (before the 2004 economic census) provincial GDP values were fairly close to target. He concludes that the sum of pre-economic census provincial GDP in 2004 was only 2.1 percent larger than the revised national figure; and on the other hand the pre-economic census national data turned out to be rather inaccurate.

Second, Croushore and Stark's 1999 paper "A Real-time Data Set for Macroeconomists" examines the creation of a 'real-time' data set that gives researchers a snapshot of the available macroeconomic data at any given time. Referring to each data set corresponding to the information available at a particular date as a 'vintage', Croushore and Stark names the collection of such vintages as a 'real-time dataset'. Croushore and Stark emphasize that vintages of data are important for analyzing the response of policymakers to economic events. This paper provides a basic foundation for using such datasets and how to construct them. The methodology introduced by Croushore and Stark will be applied in a similar manner in this study.

Finally, Mincer and Zarnowitz's 1969 research "Evaluation of Economic Forecasts" provides the methodology to test panel data and the Mincer-Zarnowitz joint test. This exposition

presents methods of evaluating economic forecasts and finds evidence that in most cases, the Mincer-Zarnowitz statistical tests reject the joint hypothesis of unbiasedness and efficiency. This is largely due to bias in the early estimates.

III. Hypothesis and Test

My expectation is that the general macroeconomic data for China's provinces is revised upward over time. This expectation follows the similar upward trends of China's national data revisions as demonstrated in Holz (2002) and Sinclair (2012). To test this, growth rates and percentage changes for GDP, Primary, Secondary and Tertiary sector in first release, second release and final latest release are calculated for each province. The descriptive statistics will be compared across provinces.

Secondly, my expectation is that the second releases are more accurate than the first and the third more accurate yet, which suggests that the second release will be closer to the final value than the initial value. This is consistent with assumptions of the OECD, (Lequiller and Blades, 2007), that revised data are of higher quality than earlier releases. Presumably, if this logical progression does not hold, it hints at deeper, political interventions. The test employed here will be the Mincer-Zarnowitz (MZ) regression of First and Second releases on the Final release estimates using panel data. The First release and Second release will be tested individually on the Final release. Also, this model is estimated individually for GDP, and the three sectors: primary, secondary, and tertiary sector. The test performed on the releases will be the Mincer-Zarnowitz joint test for α =0 and β=1. A statistically significant F-test rejects the MZ joint test of unbiasedness and efficiency. This means that the first release and/or second release are biased forecasts of the latest final estimates (Holden and Peel, 1990).

IV. Data

The data used in this researched was compiled by the National Bureau of Statistics (NBS) of China. This dataset containing official annual macroeconomic data estimates are published in the *Provincial Statistical Yearbook* each year as part of the provincial accounts for China. These yearbooks are released annually and are available from 1997 to 2011. The dataset contains of four series in real terms, GDP and the three main sectors: primary, secondary, and tertiary for thirty provincial divisions. Officially, China uses the production approach to measure GDP (Holz, 2008), and the primary sector is generally agriculture, secondary is manufacturing and processing of agriculture, and tertiary is the service sector[1]. These four series are all in real terms and reported in annual growth rates for all thirty provincial divisions. It is interesting to note that the different sectors may have different relative importance for each province, for reasons such as geographical location. For instance, the geographic concentration of manufacturing sectors continues into the coastal areas, and presents a regional disparity between the inland areas (Zhao, Shi, and Yang). This may suggest that coastal provinces may have advantages in the secondary sector of manufacturing relative to other provinces. Similarly, different sectoral importance may be evident in the four provinces that were chosen for comparison: Beijing, Tianjin, Shanghai, and Inner Mongolia. Again, as these provinces possess inherent idiosyncratic characteristics and were chosen to highlight the similarities and differences of provincial data revisions.

Real Time Dataset

[1] NBS definitions of the industries is available on their website: http://www.stats.gov.cn/english/classificationsmethods/definitions/t20020419_402787584.htm

The dataset was constructed in a similar manner to the "real-time dataset" introduced by Croushore and Stark (2001). This unique type of dataset is required to reflect the data that was available at given times and captured the window of available data from each given year. Thus, the 2000 window of available data is reported in the 2000 provincial statistical yearbook. The revisions to the data are evident when different yearbooks report different values for the same category and date. Table 1 presents an example of the structure of the data.

Revisions

The first revisions modeled for each series are the changes in the first initial estimates to the second reported data values from the statistical yearbook. In other words, the first revision is the difference between the second and first initial reports. Final revisions are estimates measured from the first release to the latest data; meaning the difference between the final and the first initial reports. To construct the dataset of revisions, the releases examined for each series are created as "first release", "second release" and "final release". The first release is the main series we are analyzing and it is constructed by collecting the last entry of each yearbook, so that the last entry of each yearbook is the year previous to the yearbook date. As shown in Table 1, we can see that the first release is a diagonal, step-like dataset. The "second release" is the growth rate of the data reported two years after the yearbook date. Lastly, the "final" data is the latest available data, which is the 2011 statistical yearbook since the 2012 statistical provincial yearbook is currently not yet published. Tables 3 to 6 provide descriptive statistics and sample of the data (Beijing).

The sample for each series starts with the first available "real-time" release with 1998. For example, real GDP data was first reported starting in the 1998 statistical yearbook, thus the

first release sample for that variable starts in 1997. For all variables, the first release sample ends in 2010. All first revision ends in 2009 because we only have second releases through 2010. All final revision series end in 2008 because we only have second revisions through 2009. Tables 3 through 6 provide descriptive statistics and sample observations for the first release and latest available data as well as the revisions.

V. Panel Models

Several regressions using panel data have been employed in this study. We test if the releases are unbiased and efficient forecasts of the final releases. Each category, real GDP, primary sector, secondary sector, and tertiary sector, are regressed individually. For example, final real GDP is regressed on first release real GDP estimates, and separately final real GDP is regressed on second release real GDP estimates. This is repeated for all four variables. Using panel data, the Mincer-Zarnowitz regression we estimate is:

$$FinalRelease_{it} = \alpha + \beta FirstRelease_{it} + e_{it}$$

$$FinalRelease_{it} = \alpha + \beta SecondRelease_{it} + e_{it}$$

The panel estimates impose that all provinces have the same relationship between the dependent and independent variables with the same bias; hence the same relationship between first release and final release, as well as second release and final release. In other words, the panel test captures the average relationship and constant across provinces. The test employed here will be the Mincer-Zarnowitz (MZ) regression of the final release estimates on first and second releases. First a t-test on the coefficient will be tested with the null hypothesis β=1.

This will test whether the coefficient β is equal to 1. T-tests will also be conducted on $\alpha = 0$ to determine whether there is bias. Then, the test performed on the releases will be the Mincer-Zarnowitz joint test for the null hypothesis of α=0 and β=1. This tests whether the first and the second releases are unbiased and efficient forecasts of the final latest estimates; in other words, whether the relationship is the same between the dependent and independent variable. If the forecast is optimal then we would expect α=0 and β=1.

VI. Results

A. Summary of Provincial Revisions

First Revisions

Table 5 presents the descriptive statistics for the first revisions of Beijing. The first revisions are the difference between the real growth rates released in the statistical yearbook two years after (second releases) and those from one year after the year of the question (first releases). In the Beijing case, the first revision to GDP is 0.02% points. This positive percentage suggests an upward revision and of which the initial first release on Beijing GDP is underestimated. Similarly, the initial first releases in Beijing's primary and tertiary sector are underestimated with an upward revision of 0.03% and 0.15% respectively. Only in Beijing's secondary sector are the first initial releases overestimated with a -0.08% of downward revision.

Across all provinces, we note that Jiangsu has the greatest first revision of overall GDP with -0.95% as shown in Table 47. As for the other provinces, Hebei has the greatest upward revision of Primary with -0.15%, and Secondary with -1.97% as shown in Table 27. This suggests that the initial first releases were overestimated. On the other hand, Inner Mongolia had

the greatest first revision of overall GDP with 0.17% and tertiary with 0.74% as shown in Table 13. For Heilongqiang, first revision in its secondary sector of 0.06% suggests that the initial first releases were underestimated to prompt for an upward revision.

Final Revisions

Table 6 presents the descriptive statistics of the final revisions of Beijing. Again, the final revisions are measured from the first release to the latest available data. Thus, if the data are unchanged from the second release the revision will be the same size as Table 5. As expected, the mean absolute revision for each of the series in final revisions is larger in Table 6 than in first revisions in Table 5. This is consistent with the fact that more information has been gathered since the first release to the latest available data than from the first release to the second release, and revisions are made accordingly.

For Beijing, the final revision for overall GDP is 0.37% meaning that the final GDP estimates are revised upwards. This suggests that the initial first GDP releases were underestimated relative to the final release. Examining the final revisions of Beijing's three sectors, it is clear where this bias originates. Only the tertiary sector of Beijing final revision is positive with a 0.81% upward revision, while the primary and secondary sector is negative with a -0.65% and -0.16% of final revision. This indicates that Beijing's tertiary sector is initially underestimated in the first release and this significant upward final revision reflects in the overall upward GDP final revision. This characteristic is consistent with the general view that macroeconomic data for China have been revised upwards over time due to underestimation in the service sector (Holz 2002 and Sinclair 2012).

B. Provincial Comparisons: Beijing, Tianjin, Inner Mongolia, and Shanghai

To compare the size of the Chinese provincial revisions, Tables 19 and 20 provide descriptive statistics for four Chinese provinces; Beijing, Tianjin, Inner Mongolia and Shanghai's real GDP. Table 19 presents the descriptive statistics for Beijing's real GDP growth data that would be comparable to the Tianjin, Inner Mongolia, and Shanghai data. The first column of Table 19 is the first release for Beijing that is equivalent to the annual data released for the previous year. The second column of Table 19 is for the latest available data for the Beijing province from 2011. Beijing province has a high real GDP growth rate on average, at about 10.9% growth rate; however, Beijing's growth rate is the smallest when compared to the growth rate of Tianjin, Inner Mongolia, and Shanghai. Tianjin's real GDP growth rate on average is at about 13.2%, Inner Mongolia's is at 14.7%, and Shanghai's at about 11.1%. Beijing is one of China's top-tier, bustling financial areas, but has the smallest growth rate amongst these four provinces. This finding may be justified with the 'low hanging fruit' theory, where further growth for already urbanized areas like Beijing face limitations to resources. Similarly, we can also attribute Inner Mongolia's rapid mean GDP growth to the unique phenomenon of China's 'ghost cities' and 'bridge-to-nowhere' (See Economist, 2012). Furthermore across these four provinces, the mean of the latest available data is higher than that of the first releases, with only Tianjin as the exception. Only Tianjin has smaller values in the mean, maximum and minimum in the latest available data as compared to the first release data for real GDP growth, fixing a comparable sample from 1998-2008. Overall, the real GDP growth numbers for these four provinces are slightly higher, but are similar to the national real GDP growth rate of about 10%.

Table 20 presents the descriptive statistics for the revisions for real GDP for Beijing, Tianjin, Inner Mongolia, and Shanghai. Comparing across the four provinces, it is important to notice that the first revisions of these four provinces are smaller than final revisions. Final revisions are much greater than first revisions suggesting that the initial first releases in Beijing, Tianjin, Inner Mongolia and Shanghai were drastically underestimated. As more information has been gathered since the early estimates, final revisions are made accordingly at a greater extent than during the first revisions.

C. Graphical Representation

It is interesting to view the impact of Chinese provincial data revisions graphically. For Beijing in Figure 1, the final latest available data are generally higher than the first release and second release series for real GDP and tertiary. This suggests that the first initial releases were underestimated and prompted for an upward first revision in Beijing real GDP and tertiary. This finding is consistent with the upward, positive percentage points in first revisions of Beijing real GDP growth rates of 0.02% as reported in Tables 5 and Beijing tertiary of 0.15%. Similarly, the upward, positive final revisions of Beijing real GDP with 0.37% and tertiary with 0.81% is consistent with the graphical trend as reported in Tables 6. For the primary sector data, we can see in Figure 1 that there has been little revision in the first and later part of the sample. Only the middle years were revised downward in the latest available data. For the secondary sector data, we can see there has been little revision and the latest available data is essentially the same as the first and second release data. The data for the tertiary sector shows a clear and distinct pattern. We see a similar pattern for Beijing real GDP, but the first release data for tertiary sector is essentially the same. However, the latest release data for the tertiary sector is generally revised

upward and consistent with the findings of the underestimated initial first releases shown in Table 6.

The general data revision trend as seen in Beijing is typical across all Chinese provinces. Highlighting this trend is Inner Mongolia and Shanghai. For Inner Mongolia in Figure 3, the latest available data is generally higher than the first release and second release series for real GDP, and similarly for Shanghai in Figure 4. This suggests that most of the revisions to Inner Mongolia and Shanghai real GDP have been positive and upwards over time. This finding is consistent with the underestimated initial first releases of Inner Mongolia and Shanghai real GDP growth rates as reported in Tables 14 and 18. For the primary sector data, we can see in Figure 3 and 4 that there has been little revision in the first and later part of the sample years. Only the middle years were revised slightly downward in the latest available data. For the secondary sector data in Inner Mongolia and Shanghai, we can see there has been slight revision of the downward trend but the latest available data is essentially the same as the first and second release data. Similarly in Inner Mongolia and Shanghai, the data for the tertiary sector also shows a clear upward revision pattern in the latest revisions. We see a similar pattern in the latest release data for the tertiary sector that is generally revised upwards, consistent with the findings of the positive means reported in Table 14 and 18.

It is also important to highlight the Tianjin province to observe countering the trends. Figure 2 shows that estimates for Tianjin are relatively close in its first, second and final releases. There is a slight downward revision in the final estimates in the GDP, primary and earlier sections of the secondary sector. This suggests that the early reports were slightly overestimated. However, the general revision trends in Tianjin are slightly upward in both first and final revisions.

Lastly, it is also worth noting other provinces, beyond the four compared, that demonstrate unique trends of Chinese provincial data revisions. For instance, Shanxi province and Xinjiang province, seen in figure 6 and 30 respectively presents data revisions that are generally sporadic throughout the first, second and final revisions as well as across all sectors. Despite these atypical cases, the overall data revisions across the thirty Chinese provincial level divisions are generally revised upward.

C. Panel Data Tests

The panel data test uses the Mincer-Zarnowitz regression. Regression on the first release values is presented in Table 21. For Model 1, the panel test rejects the null hypothesis of $\beta = 1$ and $\alpha = 0$ for all four of the first estimates series compared to second estimates. For all variables, GDP, primary, secondary, and tertiary sector appears to have coefficients different from 1 and constants that are also positive. This suggests that there appears to be a positive bias for all four variables. Next, for all four variables, the t-test for the null hypotheses: $\beta = 1$ results in significant p-values. Thus, we reject the null hypothesis that β is equal to 1 for each variable. Furthermore, the Mincer-Zarnowitz joint test with the null: $\alpha = 0$, $\beta = 1$ results in a significant F-test value. This suggests that the null for the joint test is rejected and one can conclude that the First releases for GDP, primary, secondary and tertiary sectors are biased and inefficient predictors of the final latest estimates. In other words, the panel test estimates the relationship between the first release and the final release, and one can conclude that the first release is a biased and/or inefficient estimate of the Final release. These findings are consistent with the overall observations presented in the descriptive statistics of provincial first revisions, since the general first estimates are biased across all provincial divisions and the average bias is positive.

Similarly for Model 2, the Second releases are tested in a similar manner as compared to Model 1. Again for all variables, GDP, primary, secondary, and tertiary sector appears to have coefficients different from 1 and constants that are also positive. This suggests that there appears to be a positive bias for all four variables too. Similarly, the t-test for the null hypotheses: $\beta = 1$ for all four variables results in significant p-values. Thus, we reject the null hypothesis that β is equal to one for each variable. Also, the Mincer-Zarnowitz joint test with the null: $\alpha = 0$, $\beta=1$ results in a significant F-test value. This suggests that the null for the joint test is rejected, and one can conclude that the second releases for GDP, primary, secondary and tertiary sectors are biased and inefficient for the final latest estimates. In other words, the panel test estimates the relationship between the second release and the final release, and one can conclude that the second release is biased and inefficient estimate of the final release. These findings are consistent with the overall observations presented in the descriptive statistics of all provincial second revisions, since the general second revisions are biased across all provincial divisions. It is also worth noting that the sample observations for the second releases are smaller than the first releases. This is because all final revision series end in 2008 because we only have second revisions through 2009.

From these panel tests, the panel estimate findings gives the average effect across provinces. With the MZ joint test on α and β, the results indicate biasedness and inefficiency from both the first release and second release forecast series on the final estimates. Future research could improve the panel data model by including more variables, fixed effects and extending the current model to an unbalanced panel data model.

D. Comparison of Provincial panel estimates to Country-level estimates

To further explore the properties of Chinese data revisions, provincial panel estimates are compared to country-level estimates presented in Sinclair (2012). As mentioned previously, national estimates are calculated from adjusted provincial data undertaken by the NBS with the foundation of adjustments not publicized (Holz, 2002). Thus, comparison between the size of revisions at the provincial and national level may provide interesting insights.

Country-level estimates are shown in Table 23 and 24. It is interesting to note at the national level, the first revisions of GDP, secondary and tertiary sector are all subjected to upward revision from early estimates. This suggests that early estimates for GDP, secondary and tertiary sector were underestimated. Only the primary sector was revised downward. Among the four series, the tertiary sector of first revision demonstrates the largest upward revision of 0.73%. Similarly in the final revision, tertiary sector was revised the greatest with a 2.25% upward revision. GDP, secondary and tertiary sector were once again revised upward with only the primary sector revised downwards. This national trend is consistent with the overall patterns across provinces shown in Table 20 as compared to national-level revision means in Tables 23 and 24. At the provincial level, the first revision and final revision is smaller in general compared the national GDP revisions; however, similar to national revisions: the provincial final revisions greatly increase in size from first revisions.

VII. Conclusions

The finding of this study is that macroeconomic provincial data for China are generally revised upward, despite a few atypical cases. The gradual transition from the Soviet Material Product System to the current United Nation's System of National Accounts may contribute to these data revisions (Holz, 2002). China adopted the Soviet model of economic

development in the 1950s and embraced the Material Product System (MPS) to organize its national income accounts. The MPS covers five material production sectors of agriculture, industry, construction, transportation and communication, and commerce. The service sector was largely included within these material production sectors. Following the introduction of the market-oriented economic reforms, the traditional statistical system faced severe challenges. When enterprises in private and foreign ownership began to multiply in the 1980s, the statistical reporting system struggled to measure the economic activities of several hundred farmers and the newly established enterprises. In 1992, China abandoned the MPS and adopted the United Nation's System of National Accounts as the new national income accounting framework. The SNA standard requires the compilation of data on many new variables that neither statistical personnel nor reporting units were familiar with, such as Tertiary sector value added. Holz explains that following the 1993 census the NBS conducts regular benchmark revisions and GDP data on the tertiary sector. Since the 1995 Statistical yearbook, revisions have been made every year. In retrospect, "year 1993 was revised upward by more than 10% largely because of a 33.45% upward revision to tertiary sector value added" following the 1993 tertiary sector census (Holz, 2002). The upward revision trends seen from this study with the sample years 1997-2011 at the provincial level may be partially accounted for by the gradual transition from the Material Product System to the System of National Accounts.

Furthermore, it is also important to acknowledge the claims of data falsification surrounding Chinese macroeconomic data. At the provincial level, there are varying incentives to exaggerate data due to growth targets and performance measurements on local authorities. Heston (2001) claims that there are "winds of falsification" particularly in the late-1990s. However, the NBS in recent years has increased its reliance on survey teams to report directly to

the central government bypassing local authorities and businesses to report industrial production directly online (Koech and Wang, 2012).

Next, comparing panel estimates we conclude that the size of provincial revisions in both the first release and second release are larger than the size of national revisions at the country-level. This observation is not surprising as larger data revisions are observed across provincial divisions that to the country-level estimates. This is also consistent with the claims by Holz (2002) that county, municipal and provincial statistical bureaus have been reported to "squeeze the water content" out of the data they receive from the immediate lower-level government's statistical bureau. Finally, using the Mincer-Zarnowitz joint test for $\alpha = 0$ and $\beta = 1$, the statistically significant F-test rejects the MZ joint test of unbiasedness and efficiency for both the first and second release. Despite the assumption that second releases capture more information than first releases, the test results suggest that both the first and second release are unable to accurately predict the final latest estimates. These findings may further support claims of political manipulation of data estimates at the local provincial levels. Future research could improve the panel data model to include more variables and fixed effects. A more sophisticated panel data model may provide additional insights on first release and second release series to forecast the Final latest estimates. In addition, future research could also explore and extend the current model to an unbalanced panel data model as well as increase the sample size by collecting data from additional statistical yearbooks. Additional tests of autocorrelation of the errors could also benefit further analysis.

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Appendix

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

Activity Date	Yearbook Date	1997	…	2008	2009	2010	2011*
1997	1998	9.6	…	10.1	10.1	10.1	10.1
1998	1999	n/a	…	9.5	9.5	9.5	9.5
…	…	…	…	…	…	…	…
2006	2007	n/a	…	0.62	0.62	0.62	0.61
2007	2008	n/a	…	2.2	2.2	2.2	2.2
2008	2009	n/a	…	n/a	1.1	1.1	1.1
2009	2010	n/a	…	n/a	n/a	4.6	4.6
2010	2011	n/a	…	n/a	n/a	n/a	-1.6
2011	2012	n/a	…	n/a	n/a	n/a	n/a

*The 2012 vintage of data come from the NBS website as the yearbook has not yet been released

Table 2: Example of the First, Second and Final Releases: Beijing Real GDP Growth

Activity Date	Yearbook Date	First Release	Second Release	Final Release (use 2011)
…	…	…	…	…
2007	2008	13.3	13.3	14.5
2008	2009	9.0	9.1	9.0
2009	2010	10.2	10.2	10.2

2010	2011	10.3	10.3	10.3

Beijing Province

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

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.89	1.76	10.08	11.60
Median	10.5	1.9	10.25	11.70
Maximum	13.30	5.00	16.70	14.10
Minimum	9.00	-3.00	2.40	9.10
Std. Dev	1.35	2.38	3.22	1.50
Skewness	0.57	-0.44	-0.48	-0.04
Kurtosis	2.3	2.3	4.18	-0.62
Observations	15	15	15	15
Sample	1997-2010	1997-2010	1997-2010	1997-2010

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

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.25	1.2	10.16	12.4
Median	11.1	1.11	10.42	13.1
Maximum	14.5	4.62	17	15.41
Minimum	9	-11.14	0.81	9.3
Std. Dev	1.68	2.3	3.64	1.73
Skewness	0.49	-0.07	-0.77	-0.36
Kurtosis	2.39	2.01	4.51	-0.63
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

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

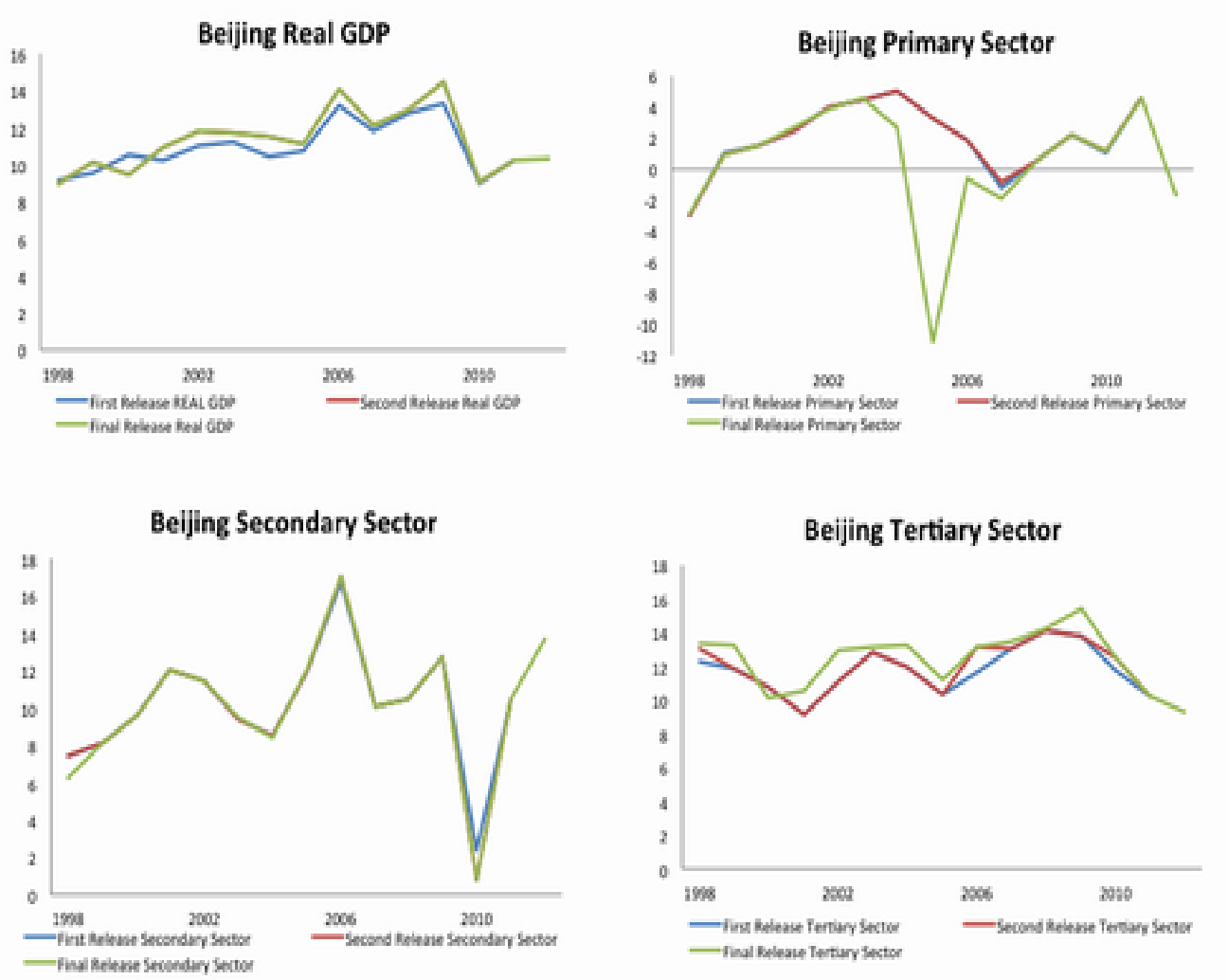
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.02 (0.08)*	0.03 (0.03)	-0.11* (0.11)	0.15
Maximum	0.9	0.4	0.3	1.5
Minimum	-0.7	0	-1.6	0
Std. Dev	0.31	0.10	0.41	0.46
Skewness	0.80	3.47	-3.47	-2.29

Kurtosis	7.66	13.1	13.1	6.79
Observations	15	15	15	15
Sample	1997-2010	1997-2010	1997-2010	1997-2010

Table 6: Beijing Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean SE	0.36* (0.15)	-0.61* (0.35)	-0.16 (0.13)	0.81
Maximum	1.1	-0.2	0.3	1.6
Minimum	-1.0	--4.4	-1.6	-0.7
Std. Dev	0.57	4.14	0.52	0.75
Skewness	-0.63	-2.75	-2.11	-0.89
Kurtosis	3.37	9.09	5.94	2.83
Observations	15	15	15	15
Sample	1997-2010	1997-2010	1997-2010	1997-2010

Figure 1: Beijing



Tianjin Province

Table 7: Tianjin Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	13.8	4.6	15.1	12.6
Maximum	17.4	8.2	20.2	14.7
Minimum	9.3	0.1	7.4	8.9
Std. Dev	2.5	2.67	3.59	1.83
Skewness	-0.155	-0.63	-0.502	-0.02
Kurtosis	1.59	2.57	2.29	2.1
Observations	15	15	15	15
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 8: Tianjin Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	13.8	4.6	15.2	12.9
Maximum	17.4	8.2	20.2	15.4
Minimum	9.3	0.1	7.4	8.9
Std. Dev	1.67	2.37	3.63	1.73
Skewness	0.50	-0.05	-0.77	-0.32
Kurtosis	2.4	1.90	4.52	2.18
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 9: Tianjin Descriptive Statistics of First Revisions (in percentage points)

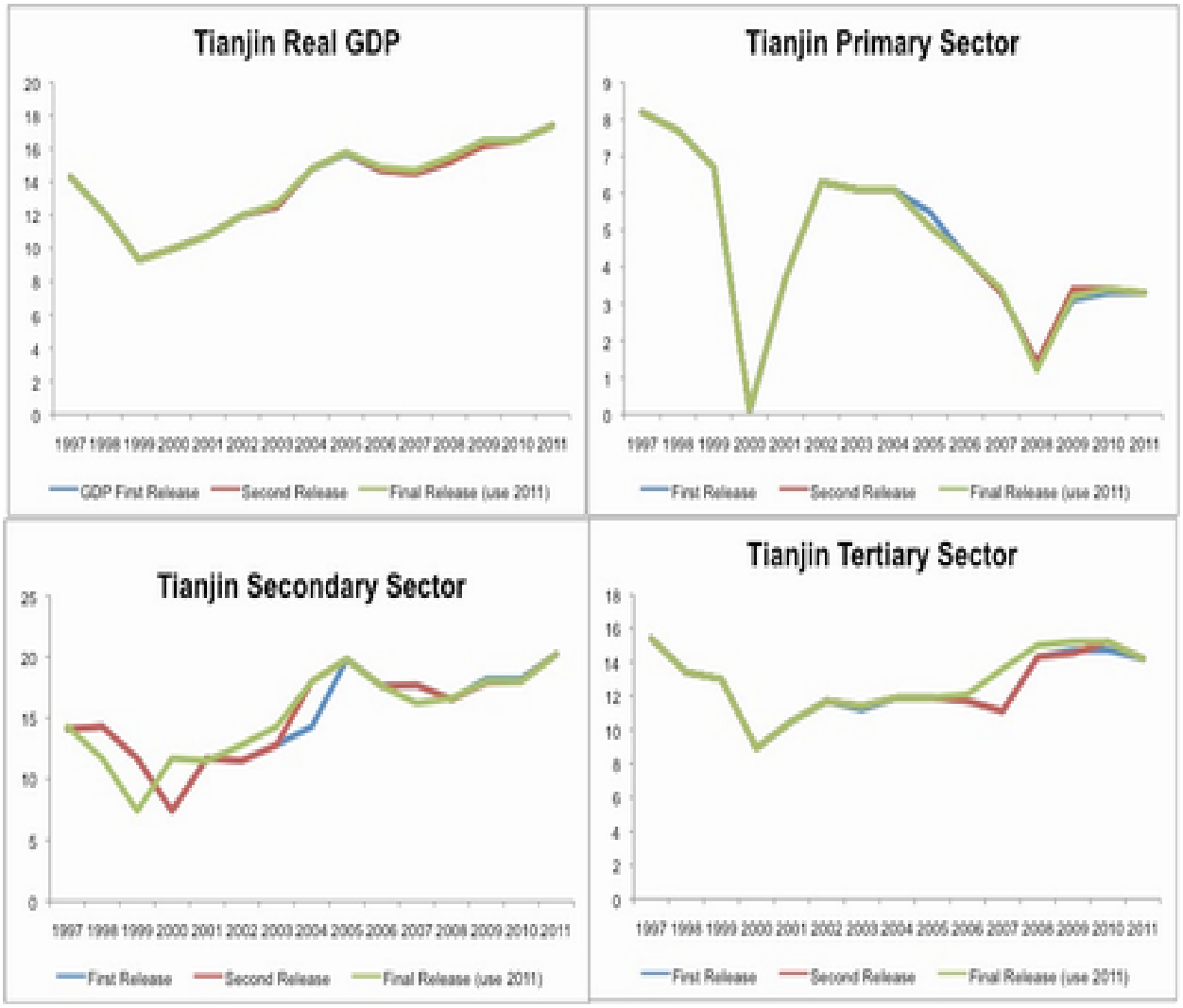
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean SE	-0.01 (0.48)	0 (0.11)	0.2 (-0.60)	0.03 (0.347)
Maximum	0.1	0.3	3.7	0.5
Minimum	-0.3	-0.4	-0.3	-0.2
Std. Dev	1.74	0.39	2.16	1.25
Skewness	-3.16	2.39	-3.17	-3.15
Kurtosis	11.03	8.50	11.05	10.99
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 10: Tianjin Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean SE	0.07 (0.47)	-0.02 (-.95)	0.1 (1.0)	0.3 (0.26)
Maximum	0.3	0.1	4.3	0.7
Minimum	0	-0.4	-4.3	0
Std. Dev	1.62	3.28	3.46	0.92
Skewness	-0.33	-0.60	0.05	0.01
Kurtosis	2.1	2.82	1.70	2.03
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Figure 2: Tianjin



Inner Mongolia Province

Table 11: Inner Mongolia Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	14.5	6.1	19.3	12.9
Maximum	23.8	11.7	35.4	18.1
Minimum	7.8	1.0	10.0	6.8
Std. Dev	4.9	3.0	7.8	2.35
Skewness	0.14	0.62	0.37	0.51
Kurtosis	1.87	2.72	2.13	2.25
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 12: Inner Mongolia Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	15.3	5.9	18.8	15.3
Maximum	23.8	21.4	34.9	22.0
Minimum	8.8	1.0	9.6	12.3
Std. Dev	4.6	3.1	7.8	2.3
Skewness	0.15	0.78	0.36	1.52
Kurtosis	1.85	2.78	2.14	5.6
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

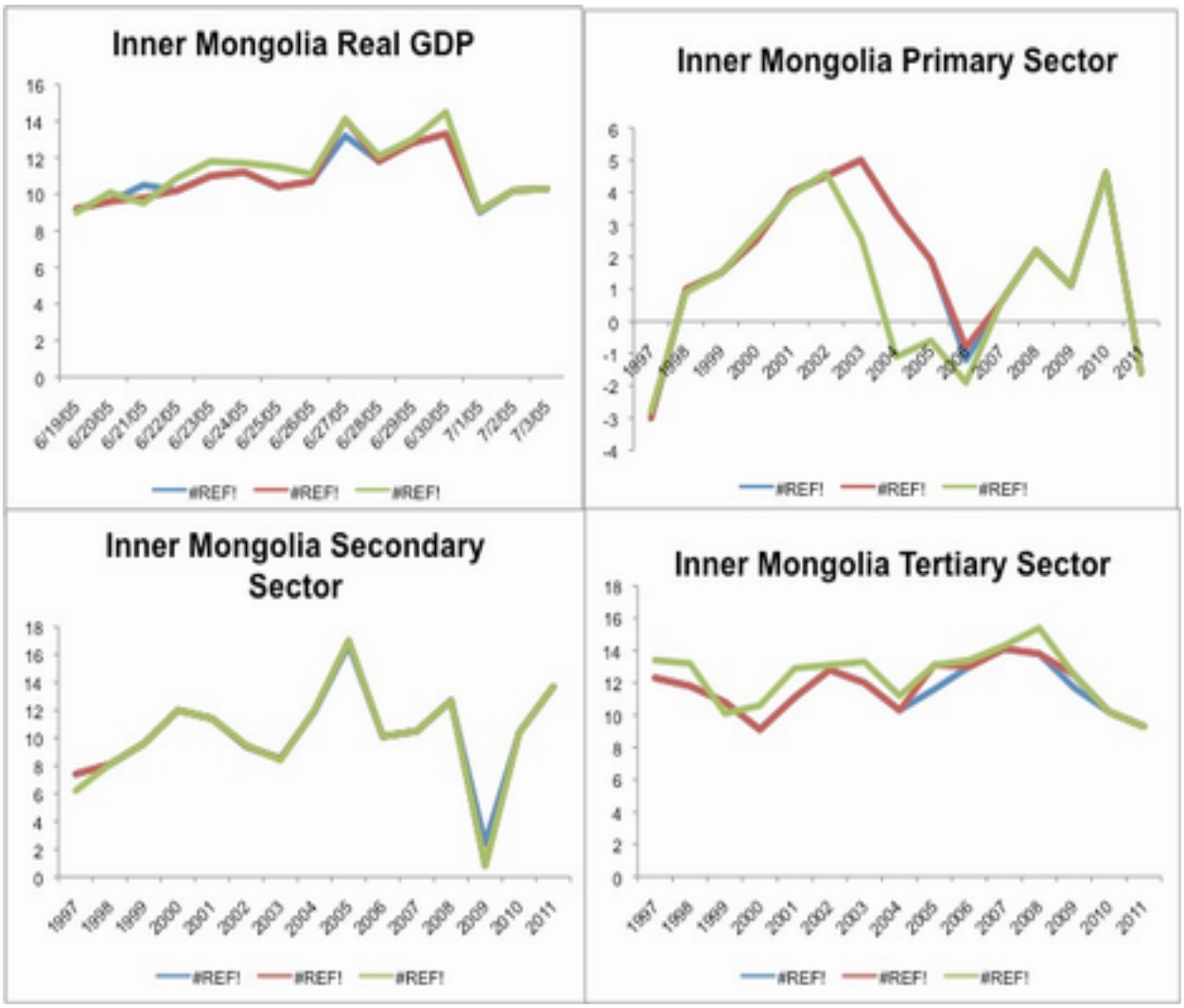
Table 13: Inner Mongolia Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean SE	0.13 (0.10)	-0.16 (0.2)	-0.18 (0.47)	0.59 (0.71)
Maximum	1.1	0	1.3	8.6
Minimum	0	-2.4	-5.1	0
Std. Dev	0.35	0.69	1.61	2.48
Skewness	1.93	-3.0	-2.49	3.0
Kurtosis	5.46	10.0	8.48	10.1
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 14: Inner Mongolia Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean SE	0.76 (0.13)	-0.2 (0.22)	-0.43 (0.48)	2.4 (0.72)
Maximum	1.7	0	1.40	8.6
Minimum	0.01	-2.4	-5.1	0
Std. Dev	0.43	0.72	1.6	2.4
Skewness	-1.12	-2.72	-1.92	1.17
Kurtosis	2.41	8.61	6.8	4.58
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 3: Inner Mongolia



Shanghai Province

Table 15: Shanghai Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.3	0.49	11.0	12.3
Maximum	14.3	5.0	16.8	17.8
Minimum	8.2	-8.8	1.6	5.7
Std. Dev	1.62	4.07	3.8	3.3
Skewness	0.37	-1.2	-0.76	0.01
Kurtosis	2.71	3.0	3.95	2.73
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 16: Shanghai Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.6	0.42	11.0	13.1
Maximum	15.2	5.0	16.8	18.8
Minimum	8.2	-9.70	3.5	5.70
Std. Dev	1.85	4.2	3.5	3.4
Skewness	0.43	-1.3	-0.23	-0.11
Kurtosis	2.8	3.3	2.96	3.0
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 17: Shanghai Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.04	-0.01	0.1	0.11
Maximum	0.6	-0.1	1.9	1.2
Minimum	0	0	-0.2	0
Std. Dev	0.17	0	0.06	0.36
Skewness	3.0	n/a	-3.0	2.56
Kurtosis	10.1	n/a	10.1	8.1
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Table 18: Shanghai Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.3	-0.06	0	0.75
Maximum	0.9	0	0.19	1.7
Minimum	0	-0.90	-1.2	0
Std. Dev	0.25	0.24	0.36	0.54
Skewness	0.73	-2.8	-2.6	0.24
Kurtosis	2.43	8.9	8.0	1.71
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 4: Shanghai

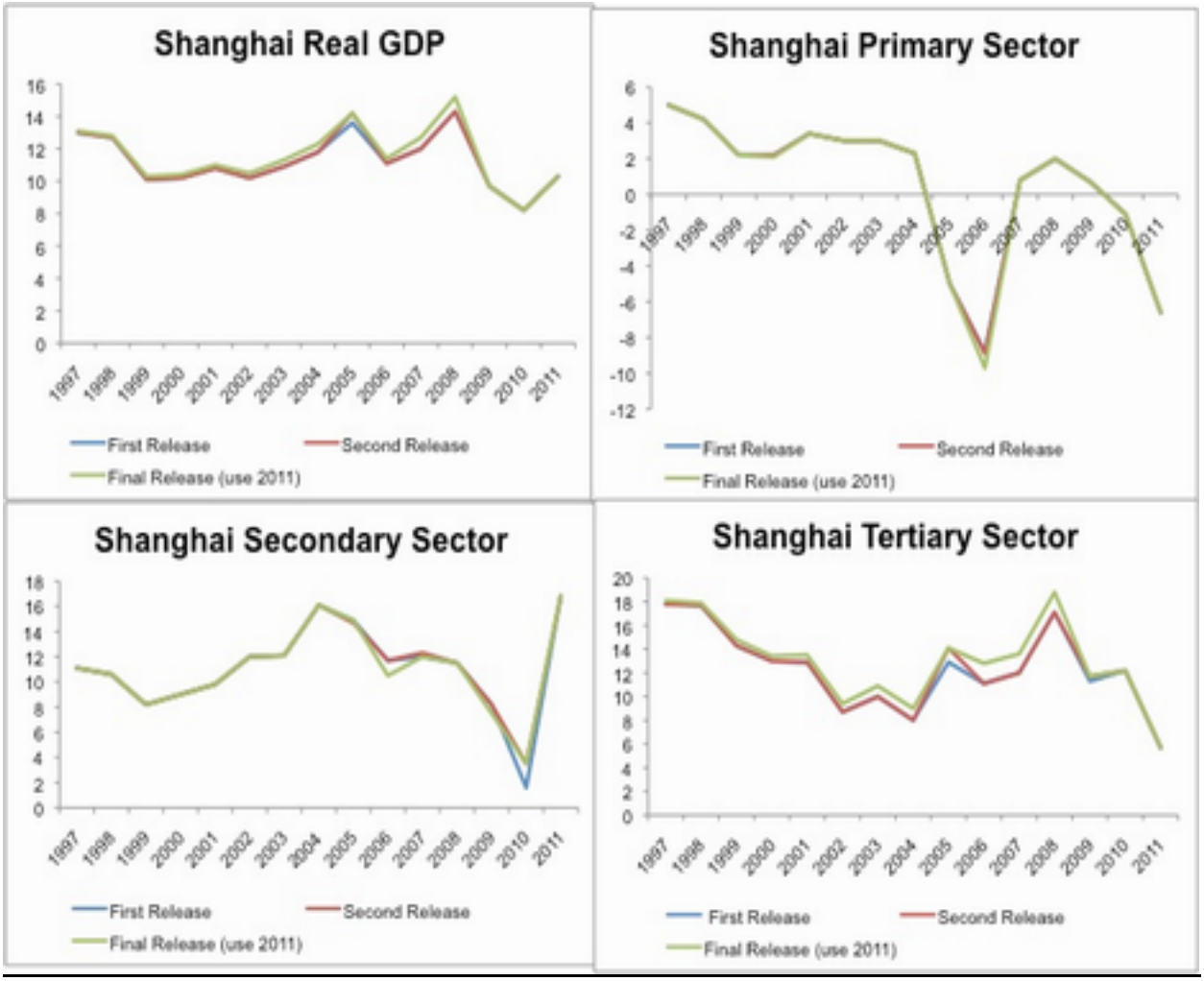


Table19: Descriptive Statistics of Provincial GDP Data (Growth Rates)

	Beijing First Release	Beijing Latest Available	Tianjin First Release	Tianjin Latest Available	Mong. First Release	Mong. Latest Available	Shanghai First Release	Shanghai Latest Available
Mean	10.89	11.26	13.8	13.8	14.5	15.3	11.3	11.6
Maximum	13.30	14.5	17.4	17.4	23.8	23.8	14.3	15.2
Minimum	9.00	9	9.3	9.3	7.8	8.8	8.2	8.2
Std. Dev	1.35	1.67	2.5	1.67	4.9	4.6	1.62	1.85
Skewness	0.64	0.57	-0.155	0.50	0.14	0.15	0.37	0.43
Kurtosis	-0.46	-0.32	1.59	2.4	1.87	1.85	2.71	2.8
Obs	15	15	14	15	14	14	14	14
Sample	1997-2010	1997-2011	1998-2011	1997-2011	1997-2011	1997-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5%, and 1% level respectively.

Table 20: Descriptive Statistics of Provincial GDP Revisions (in percentage points)

	Beijing First Revision	Beijing Latest Revision	Tianjin First Revision	Tianjin Latest Revision	Mong. First Revision	Mong. Latest Revision	Shanghai First Revision	Shanghai Latest Revision
Mean (SE)	0.02	0.37	-0.01	0.07	0.13	0.76	0.04	0.30
Maximum	1.0	1.2	0.1	0.30	1.1	1.7	0.6	0.9
Minimum	-1.2	-1.0	-0.3	0	0	0	0	0
Std. Dev	0.60	0.60	1.74	1.62	0.35	0.43	0.17	025
Skewness	1.23	-1.07	-3.16	-0.33	1.93	-1.12	3.0	0.73
Kurtosis	2.1	3.88	11.03	2.1	5.46	2.41	10.1	2.43
Obs	14	13	14	13	14	13	14	13
Sample	1997-2011	1998-2010	1997-2011	1998-2010	1997-2011	1998-2010	1997-2011	1998-2010

Table 21: Model 1 Panel Test for First Release

	GDP	**PRIMARY**	**SECONDARY**	**TERTIARY**
Constant (SE)	0.59*** (0.19)	-0.07 (0.07)	0.902** (0.30)	3.59*** (0.35)
Coefficient (SE)	0.96*** (0.016)	0.99*** (0.012)	0.92*** (0.02)	0.74*** (0.03)
t-Test for β= 1	0.00+++	0.00+++	0.00+++	0.00+++
F-test for (α =0, β=1)	0.00+++	0.18	0.00+++	0.00+++
Observations	424	424	424	424
Sample	1997-2011	1997-2011	1997-2011	1997-2011

*, **, *** Statistically significantly different from zero at the 10%, 5%, and 1% level respectively. +, ++, +++ Statistically significantly different from one at the 10%, 5%, and 1% level respectively.

Table 22: Model 2 Panel Test for Second Release

	GDP	**PRIMARY**	**SECONDARY**	**TERTIARY**
Constant (SE)	0.69*** (0.20)	-0.06 (0.06)	0.85** (0.3)	3.24*** (0.33)
Coefficient (SE)	0.95*** (0.02)	1.0*** (0.01)	0.93*** (0.02)	0.76*** (0.03)
t-Test for β= 1	0.00+++	0.73	0.00+++	0.00+++
F-test for (α =0, β=1)	0.00+++	0.43	0.00+++	0.00+++
Observations	411	411	411	411
Sample	1998-2010	1998-2010	1998-2010	1998-2010

*, **, *** Statistically significantly different from zero at the 10%, 5%, and 1% level respectively. +, ++, +++ Statistically significantly different from one at the 10%, 5%, and 1% level respectively.

Table 23: Country Level First Revisions in percentage points (Sinclair 2012)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (Newey-West SE)	0.27* (0.10)	-0.09 (0.11)	0.09 (0.12)	0.73*** (0.11)
Mean Absolute Revision	0.28	0.18	0.26	0.73
Maximum	1.1	0.68	1.27	1.74
Minimuum	-0.04	-2.99	-0.3	0.09
Observations	18	26	17	18
Sample	1993-2010	1985-2010	1991-2010	1993-2010

*, **, *** Statistically significantly different from zero at the 10%, 5%, and 1% level respectively

Table 24: Country Level Second Revisions in percentage points (Sinclair 2012)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (Newey-West SE)	0.82* (0.17)	-0.18 (0.20)	0.19 (0.18)	2.25*** (0.19)
Mean Absolute Revision	0.82	0.27	0.37	2.25
Maximum	2.23	0.68	1.67	3.43
Minimuum	0.03	-4.55	-0.33	0.76
Observations	16	24	15.	16
Sample	1993-2008	1985-2008	1991-2008	1993-2008

*, **, *** Statistically significantly different from zero at the 10%, 5%, and 1% level respectively

Hebei Province

Table 25: Hebei Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.2	5.1	12.5	11.7
Maximum	13.4	6.7	15.4	14.3
Minimum	8.7	4.0	8.3	9.0
Std. Dev	3.2	3.3	5.3	4.2
Skewness	0.19	-0.26	0.41	1.1
Kurtosis	2.42	3.52	2.93	2.97
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 26: Hebei Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.2	5.1	12.5	11.7
Maximum	13.4	6.7	15.4	14.3
Minimum	8.7	4.0	8.3	9.0
Std. Dev	1.7	2.2	3.60	1.8
Skewness	0.52	-0.01	-1.0	-0.2
Kurtosis	2.4	1.9	5.3	2.1
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 27: Hebei Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0	-0.007	0	0
Maximum	0	0	0	0
Minimum	0	-0.1	0	0
Std. Dev	0	0.55	7.13	0.06
Skewness	n/a	-3.18	-3.18	3.18
Kurtosis	n/a	11.08	11.08	11.08
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

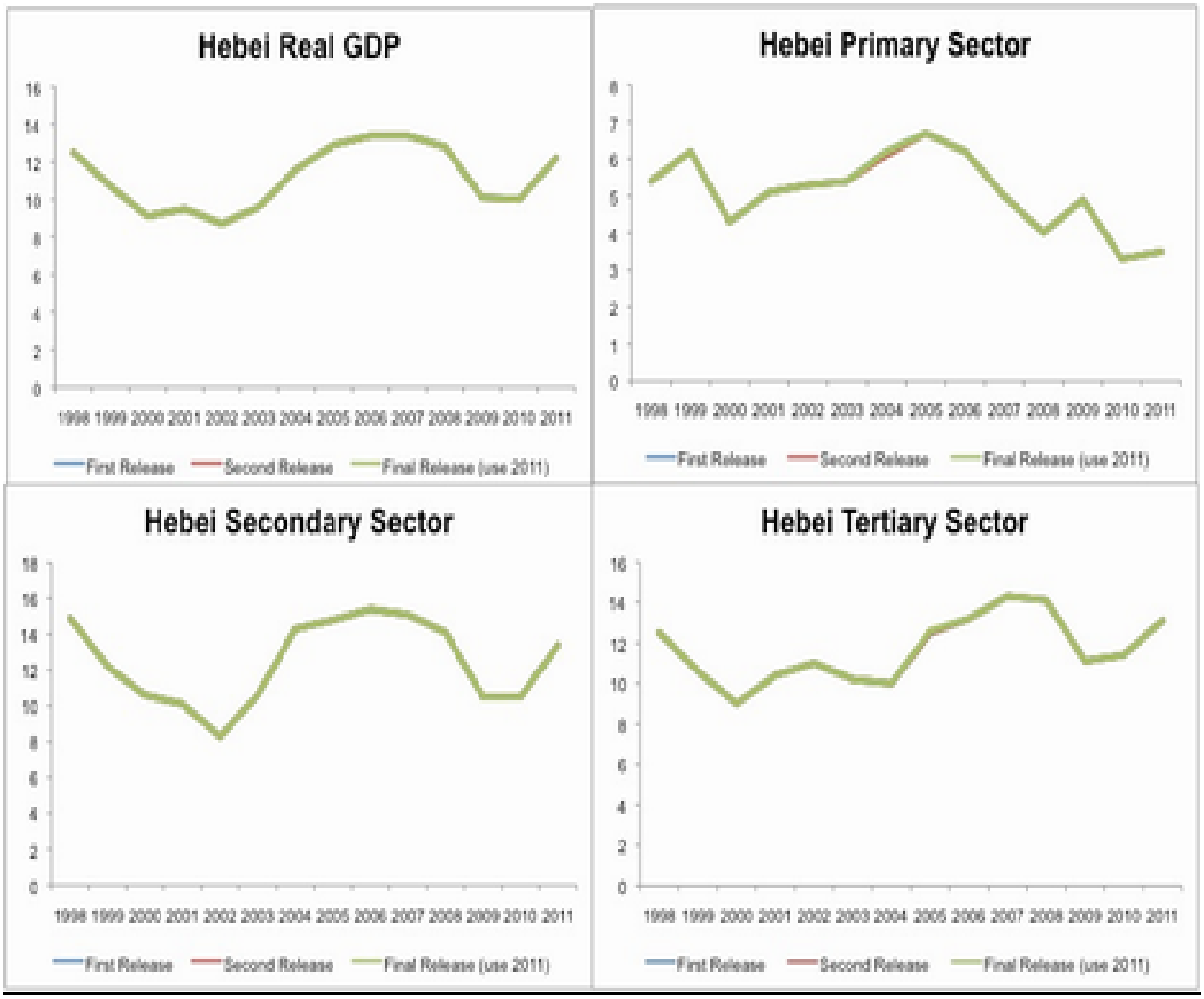
*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Table 28: Hebei Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0	0	0	0.007
Maximum	0	0	0	0.1
Minimum	0	0	0	0
Std. Dev	4.0	3.2	5.7	5.3
Skewness	-0.13	0.43	-0.23	-0.8
Kurtosis	1.86	2.4	1.95	2.5
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Figure 5:Hebei



Shanxi Province

Table 29: Shanxi Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.9	2.6	13.9	10.8
Maximum	16.8	11.6	20.1	17.4
Minimum	5.6	-18.4	2.1	7
Std. Dev	3.2	8.8	5.1	3.0
Skewness	0.05	-0.8	-0.6	0.6
Kurtosis	2.2	3.4	2.5	2.8
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 30: Shanxi Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	13.1	2.6	13.9	13.4
Maximum	17.9	11.6	20.1	17.9
Minimum	8.9	-18.4	2.1	10.3
Std. Dev	1.7	2.3	3.6	1.6
Skewness	0.4	-0.2	-0.7	-0.30
Kurtosis	2.3	2.1	4.6	2.3
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 31: Shanxi Descriptive Statistics of First Revisions (in percentage points)

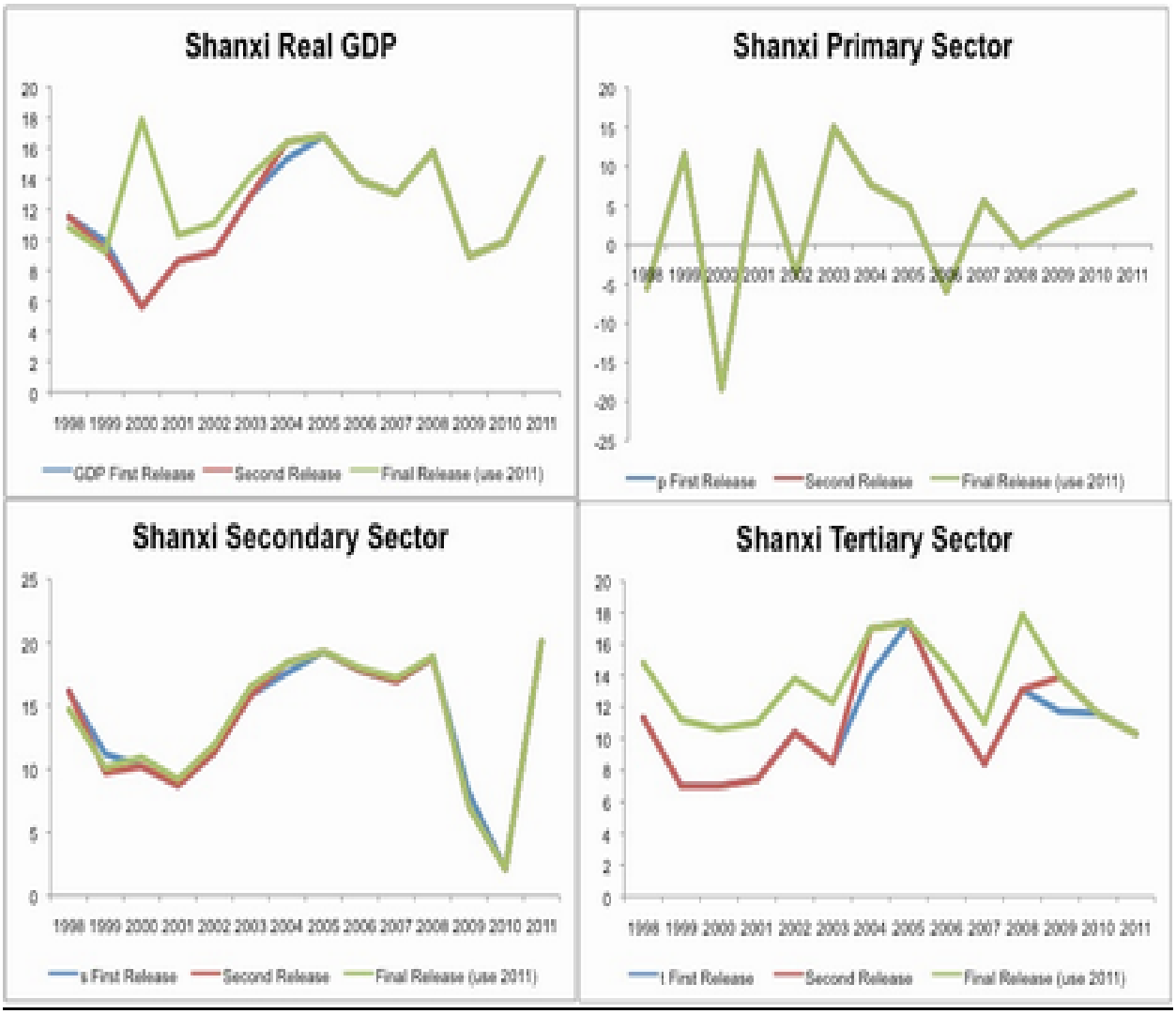
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.04	0.007	-0.13	0.36
Maximum	1.1	0.1	0.80	2.9
Minimum	-0.6	0	-1.50	0
Std. Dev	0.39	0	0.60	1.0
Skewness	1.3	n/a	-1.1	1.9
Kurtosis	6.7	n/a	4.0	4.7
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 32: Shanxi Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	1.21	0	0.02	2.64
Maximum	12.3	0	0.8	4.2
Minimum	-0.7	0	-1.1	0
Std. Dev	2.9	9.5	4.4	3.4
Skewness	-0.03	0.90	0.4	-1.2
Kurtosis	2.1	3.0	1.8	4.3
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Figure 6: Shanxi



Liaoning Province

Table 33: Liaoning Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.3	5.9	13.3	10.4
Maximum	14.5	13	20.0	12.5
Minimum	8.2	-1.6	7.5	7.9
Std. Dev	2.3	3.5	4.2	1.5
Skewness	-.12	-0.3	0.0	-0.3
Kurtosis	1.41	3.5	1.6	1.9
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 34: Liaoning Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.5	5.81	12.9	11.2
Maximum	15.0	13.0	17.8	14.5
Minimum	8.1	-1.59	7.5	7.9
Std. Dev	2.5	3.5	3.8	1.8
Skewness	-0.08	-0.21	-0.17	-0.18
Kurtosis	1.43	3.6	1.47	2.5
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 35: Liaoning Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.38 (0.26)	0 (0.00)	0.05 (0.05)	0.033 (0.033)
Maximum	1.4	0	0.6	0.4
Minimum	-1.5	0	0	0
Std. Dev	0.90	0	0.17	0.12
Skewness	0.47	n/a	3.0	3.0
Kurtosis	2.2	n/a	10.1	10.1
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Table 36: Liaoning Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.11* (0.06)	-0.06 (0.05)	-0.58* (0.31)	1.0* (0.53)
Maximum	0.5	0.008	0.001	4.2
Minimum	-0.02	-0.60	-2.7	-0.04
Std. Dev	0.2	0.18	1.0	1.7
Skewness	1.1	-2.8	-1.2	1.1
Kurtosis	2.3	9.0	2.8	2.4
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Figure 7: Liaoning

Jilin Province

Table 37: Jilin Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.7	4.8	14.0	12.3
Maximum	16.1	13.3	21.2	17.4
Minimum	8.1	-3.0	7.6	7.7
Std. Dev	2.8	4.4	4.1	3.4
Skewness	0.37	0.18	0.16	0.39
Kurtosis	1.6	2.5	1.9	1.8
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 38: Jilin Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.7	4.8	15.3	12.3
Maximum	16.1	13.3	31.4	17.3
Minimum	8.2	-3.0	7.7	8.1
Std. Dev	2.8	4.4	6.2	3.2
Skewness	0.38	0.15	1.2	0.35
Kurtosis	1.6	2.5	4.3	1.8
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 39: Jilin Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0	0	-0.07	0.09
Maximum	0	0	0	0
Minimum	0	0	0.2	1.4
Std. Dev	0	0	-1.2	0.03
Skewness	n/a	n/a	n/a	-3.0
Kurtosis	n/a	n/a	n/a	10.1
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Table 40: Jilin Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.01	0.05	1.3	-0.04
Maximum	0.10	0.70	18.0	0.60
Minimum	0	-0.04	-1.2	-0.60
Std. Dev	0.01	0.21	5.4	0.31
Skewness	-1.4	2.8	2.8	0.12
Kurtosis	5.5	9.1	9.1	3.7
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Figure 8: Jilin

Heilongjiang Province

Table 41: Heilongjiang Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.64	5.6	11.6	11.2
Maximum	12.7	12.2	14.5	14.8
Minimum	7.5	-3.2	7.6	8.8
Std. Dev	1.52	3.9	1.8	1.6
Skewness	-0.69	-0.62	-0.65	0.6
Kurtosis	2.6	3.1	3.0	2.9
Observations	15	15	15	15

Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 42: Heilongjiang Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.5	5.3	11.4	11.2
Maximum	12.7	12.2	14.5	14.8
Minimum	7.5	-3.2	7.6	8.8
Std. Dev	1.7	4.0	1.8	1.6
Skewness	-0.5	-0.59	-0.40	0.50
Kurtosis	1.9	3.0	2.70	2.9
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 43: Heilongjiang Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.03 (0.25)	-0.14 (0.18)	0.06 (0.36)	-0.11 (0.15)
Maximum	1.8	0.4	3.3	0.4
Minimum	-2.2	-2.1	-2.4	-1.7
Std. Dev	0.90	0.63	1.2	0.51
Skewness	-0.61	-2.82	1.0	-2.7
Kurtosis	6.1	9.5	6.4	9.2
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

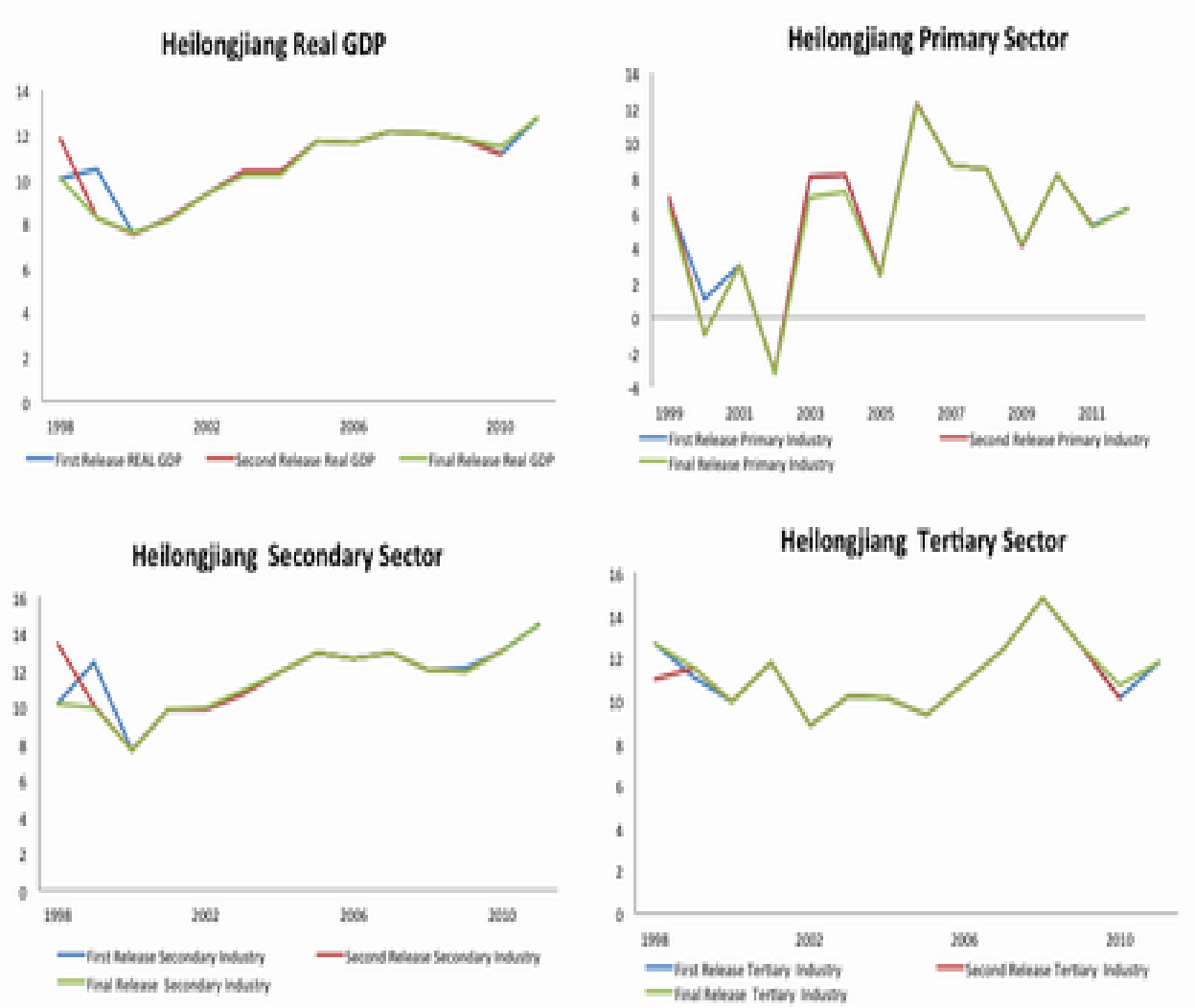
*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Table 44: Heilongjiang Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.21 (0.20)	-0.40* (0.21)	-0.18 (0.22)	0.03 (0.04)
Maximum	0.03	0.04	0.21	0.40
Minimum	-2.2	-2.1	-2.4	-0.04
Std. Dev	0.65	0.69	0.74	0.12
Skewness	-2.8	-1.5	-2.8	2.8
Kurtosis	9.0	4.2	8.9	8.9
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

*, **, *** Statistically significantly different from zero at the 10%, 5% and 1% level respectively

Figure9:Heilongjiang



Jiangsu Province

Table 45: Jiangsu Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	12.5	4.3	13.5	12.9
Maximum	14.9	9.8	16.8	16.2
Minimum	9.6	-0.8	11	10
Std. Dev	2.9	2.6	2.0	1.9
Skewness	1.6	0.12	0.2	-0.02
Kurtosis	5.9	3.3	2.4	2.0
Observations	15	15	15	15

Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 46: Jiangsu Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	12.6	4.3	13.4	13.4
Maximum	15.8	9.9	16.5	16.7
Minimum	9.4	-0.8	9.5	11.5
Std. Dev	2.3	2.5	2.6	1.5
Skewness	-0.2	0.2	-0.2	0.6
Kurtosis	1.6	3.5	1.5	2.4
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

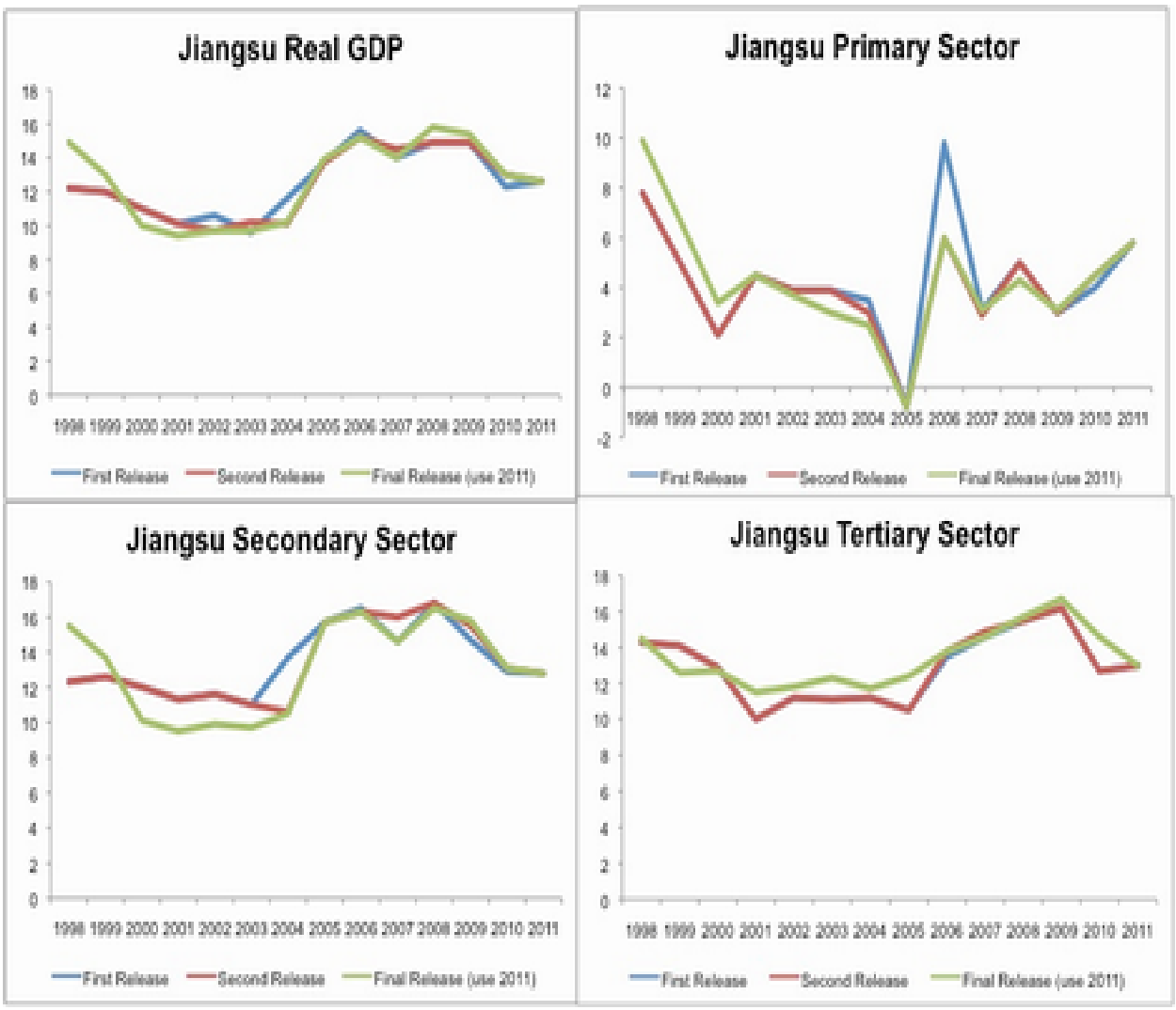
Table 47: Jiangsu Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.07	-0.29	-0.06	0.04
Maximum	0.7	0.5	1.4	0.3
Minimum	-1.5	-3.8	-3.1	0
Std. Dev	2.4	1.1	1.2	0.6
Skewness	-3.0	-2.9	-1.3	2.3
Kurtosis	10.5	9.9	4.5	7.7
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 48: Jiangsu Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.12	-0.06	-0.34	0.51
Maximum	2.7	2.1	3.2	1.9
Minimum	-0.9	-3.8	-1.9	-1.5
Std. Dev	3.7	1.6	1.7	0.9
Skewness	-2.5	-0.7	0.26	-0.4
Kurtosis	8.5	3.7	2.9	2.5
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 10: Jiangsu



Zhejiang Province

Table 49: Zhejiang Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.9	3.5	12.5	12.8
Maximum	14.7	4.8	16.7	15.4
Minimum	8.9	1.5	6.8	9.8
Std. Dev	1.9	0.95	2.7	1.8
Skewness	0.2	-0.4	-0.29	0.1
Kurtosis	1.7	2.5	2.8	2.0
Observations	14	14	14	14

Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 50: Zhejiang Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	12.0	3.5	12.5	12.8
Maximum	14.5	4.8	16.8	15.3
Minimum	8.9	1.5	6.8	9.9
Std. Dev	1.9	1.0	2.7	1.8
Skewness	0.2	-0.5	-0.23	0.01
Kurtosis	1.7	2.4	2.7	1.8
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 51: Zhejiang Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0 (0.0)	0.07 (0.07)	0.01 (0.02)	0 (0.01)
Maximum	0	0.8	0.2	0.1
Minimum	0	0	-0.1	-0.1
Std. Dev	0	0.2	0.07	0.04
Skewness	n/a	3.0	1.8	0
Kurtosis	n/a	10.1	7.4	6
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 52: Zhejiang Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.07** (0.03)	0.002 (0.008)	0.03 (0.02)	0.1 (0.06)
Maximum	0.3	0.04	0.2	0.6
Minimum	-0.04	-0.04	-0.05	-0.1
Std. Dev	0.11	0.03	0.07	0.2
Skewness	0.8	-0.2	1.2	1.1
Kurtosis	2.7	1.7	4.1	3.8
Observations	11	11	11	11
Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 11:Zhejiang

Anhui Province

Table 53: Anhui Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.1	4.3	14.1	11.0
Maximum	14.6	9.2	20.7	13.0
Minimum	8.1	-2.1	6.4	9.9
Std. Dev	2.4	3.2	4.3	0.9
Skewness	-0.1	-0.2	-0.1	0.6
Kurtosis	1.4	2.5	1.9	2.7
Observations	15	15	15	15

Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 54: Anhui Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.2	3.8	14.2	11.7
Maximum	14.6	9.2	20.7	14.3
Minimum	8.3	-6.3	7.5	8.2
Std. Dev	2.2	3.9	4.3	1.7
Skewness	0.07	-0.9	-0.003	-0.2
Kurtosis	1.5	4.2	1.7	2.6
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

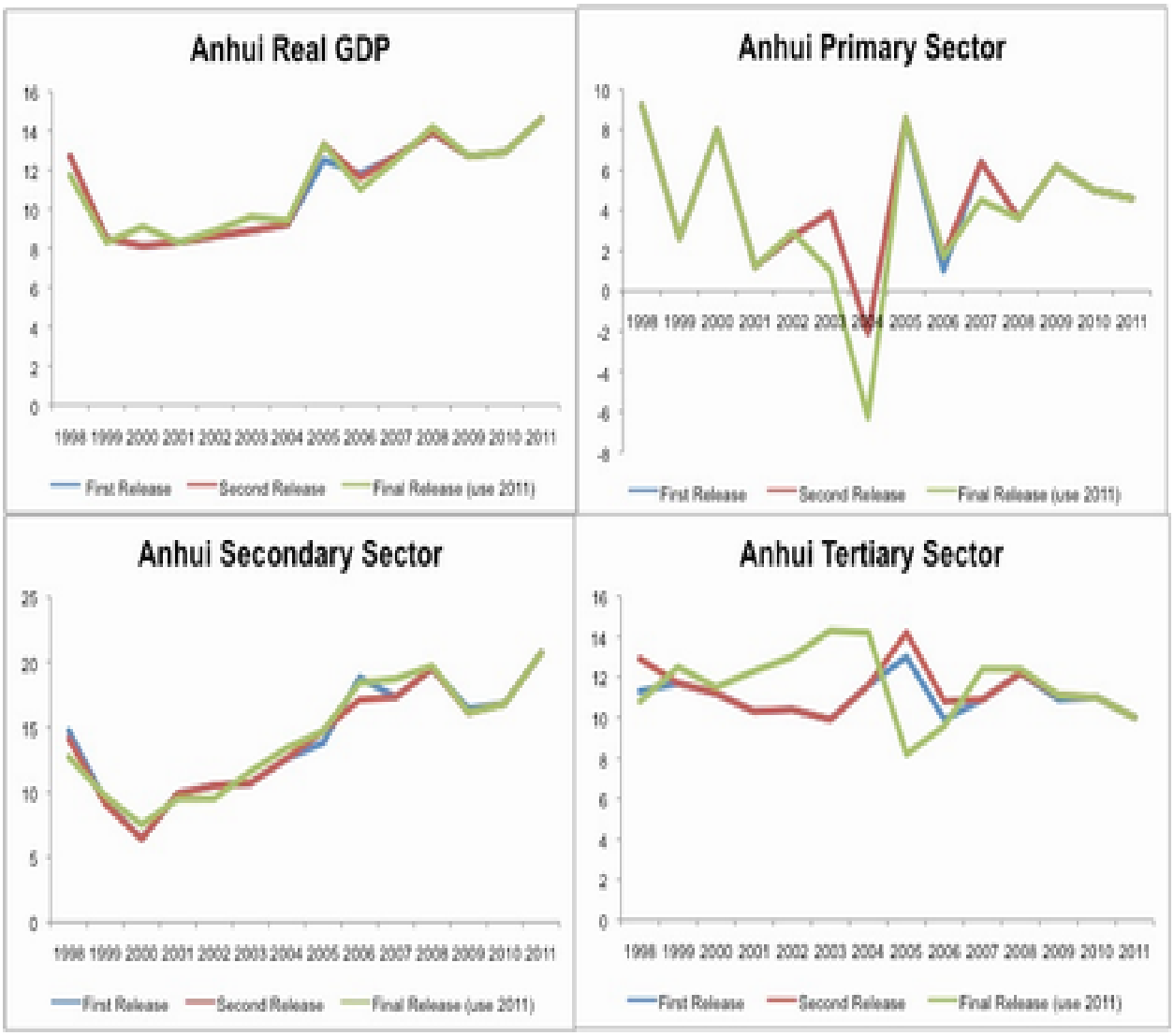
Table 55: Anhui Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.04	0.06	-0.14	0.28
Maximum	0.8	0.7	0.9	1.6
Minimum	-0.2	0	-1.7	0
Std. Dev	0.35	0.2	0.6	0.6
Skewness	2.6	2.9	1.1	1.4
Kurtosis	9.0	9.7	5.5	3.2
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 56: Anhui Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.08	-0.6	0.11	0.64
Maximum	1.0	0.7	1.4	3.1
Minimum	-1.0	-4.2	-2.0	-1.7
Std. Dev	0.6	1.5	1.0	1.5
Skewness	-0.2	-1.5	-0.7	-0.1
Kurtosis	2.4	3.8	2.7	2.1
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 12:Anhui



Fujian Province

Table 57: Fujian Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	12.1	4.2	14.7	11.1
Maximum	15.2	8.0	18.8	16.0
Minimum	9.0	2.5	10.7	2.0
Std. Dev	2.0	1.5	2.4	3.4
Skewness	0.1	1.2	0.003	-1.1
Kurtosis	1.9	4.3	2.2	5.1

Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 58: Fujian Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.9	4.1	14.3	11.8
Maximum	15.2	8.0	18.2	17.1
Minimum	8.7	0.8	10.2	9.2
Std. Dev	2.1	1.9	2.6	2.4
Skewness	0.08	0.5	0.04	0.8
Kurtosis	1.9	3.0	1.9	2.7
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 59: Fujian Descriptive Statistics of First Revisions (in percentage points)

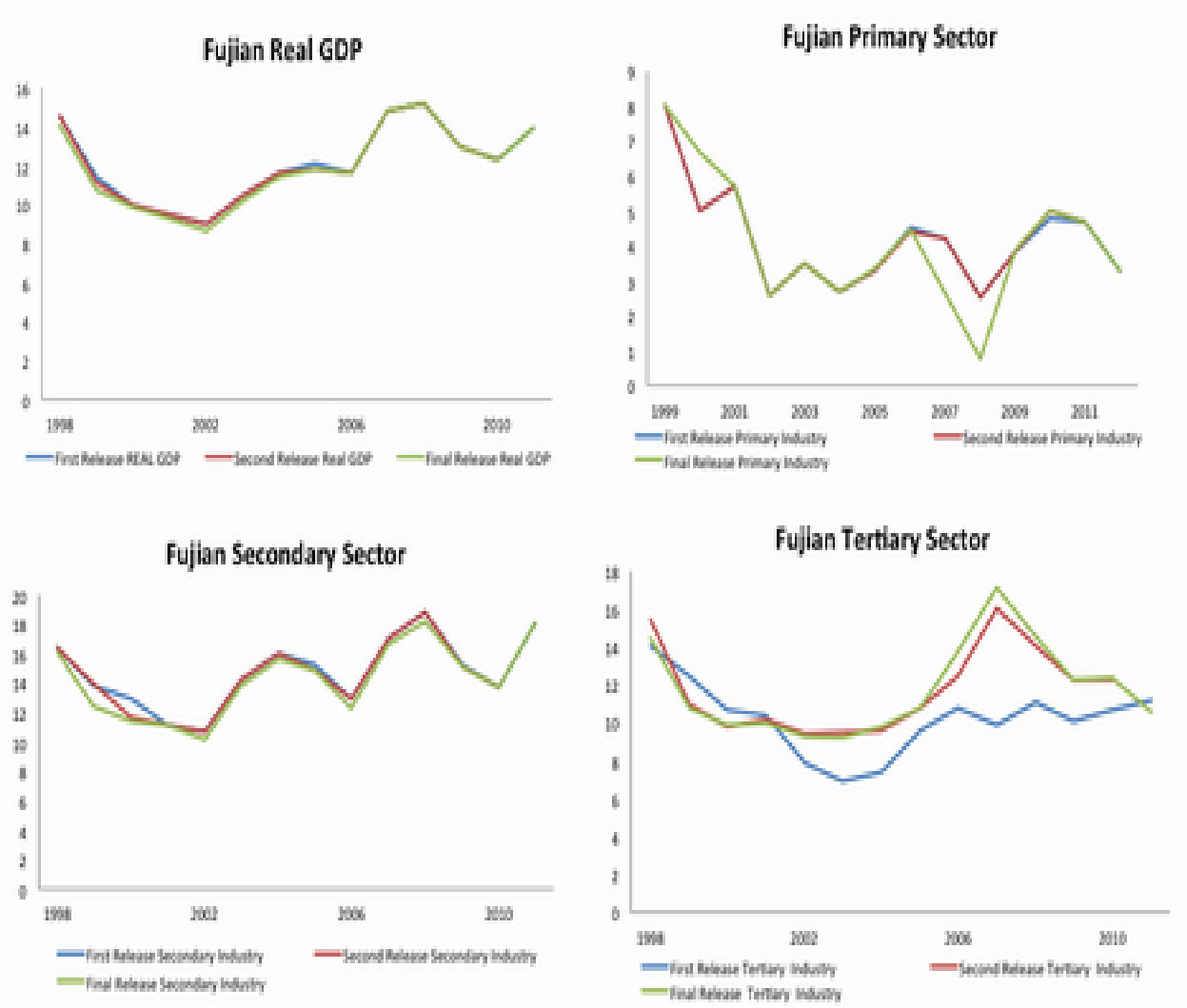
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.05 (0.03)	0.008 (0.02)	-0.13 (0.11)	0.7 (0.6)
Maximum	0	0.2	0.1	7.8
Minimum	-0.3	-0.1	-1.3	0
Std. Dev	0.1	0.1	0.4	2.2
Skewness	-1.8	1.8	-2.7	3.0
Kurtosis	4.2	7.4	8.9	10.1
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 60: Fujian Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.22*** (0.06)	-0.15 (0.3)	-0.6** (0.14)	0.82 (0.7)
Maximum	0	1.7	-0.04	7.9
Minimum	-0.6	-1.7	-1.5	-0.9
Std. Dev	0.2	0.9	0.5	2.4
Skewness	-0.5	-0.1	-1.1	2.5
Kurtosis	2.1	3.7	3.0	7.9
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 13:Fujian



Jiangxi Province

Table 61: Jiangxi Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.3	4.7	15.5	10.2
Maximum	14.0	8.0	24.3	14.0
Minimum	7.8	-3.8	6.7	6.9
Std. Dev	14.0	2.8	4.7	1.9
Skewness	7.8	-1.9	-0.5	-0.06
Kurtosis	1.7	6.7	3.1	2.8
Observations	14	14	14	14

Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 62: Jiangxi Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.4	4.7	15.5	10.4
Maximum	14.0	8.0	24.3	14.0
Minimum	7.1	-3.8	6.5	6.9
Std. Dev	2.4	2.8	4.8	1.9
Skewness	-0.7	-1.9	-0.5	-0.3
Kurtosis	1.9	6.8	3.0	2.6
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 63: Jiangxi Descriptive Statistics of First Revisions (in percentage points)

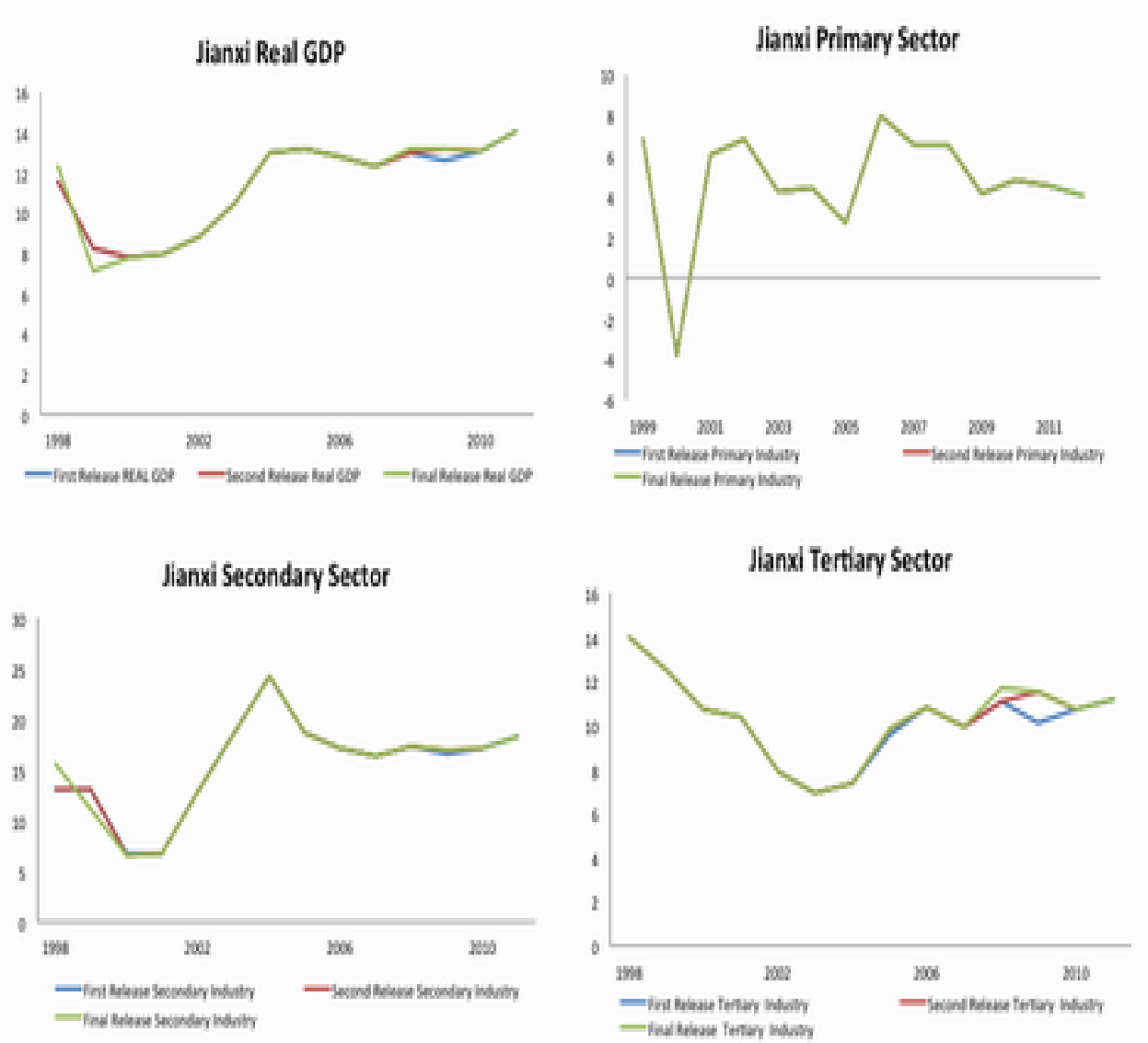
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.05 (0.05)	0 (0.0)	0.02 (0.04)	0.13 (0.11)
Maximum	0.6	0	0.4	1.4
Minimum	0	0	-0.2	0
Std. Dev	0.2	0	0.1	0.4
Skewness	3.0	n/a	1.8	2.9
Kurtosis	10.1	n/a	7.4	9.7
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 64: Jiangxi Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.01 (0.13)	0.002 (0.002)	0.03 (0.3)	0.07 (0.06)
Maximum	0.8	0.01	2.5	0.6
Minimum	-1.1	-0.01	-2.0	-0.06
Std. Dev	0.4	0.006	1.0	0.2
Skewness	-0.9	-0.2	0.7	2.4
Kurtosis	5.7	2.7	5.7	7.3
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 14: Jianxi



Shandong Province

Table 65: Shandong Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	12.4	4.3	14.3	12.4
Maximum	15.3	6.9	19.0	14.7
Minimum	10.1	0.5	11.3	9.3
Std. Dev	1.9	1.5	2.5	1.8
Skewness	0.3	-0.9	0.5	-0.1

Kurtosis	1.7	4.2	1.9	1.6
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 66: Shandong Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	12.4	4.3	14.2	12.4
Maximum	15.4	7.0	19.3	14.6
Minimum	10.0	0.5	11.0	9.3
Std. Dev	1.9	1.5	2.6	1.8
Skewness	0.3	-0.9	0.5	-0.04
Kurtosis	1.7	4.2	2.0	1.6
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 67: Shandong Descriptive Statistics of First Revisions (in percentage points)

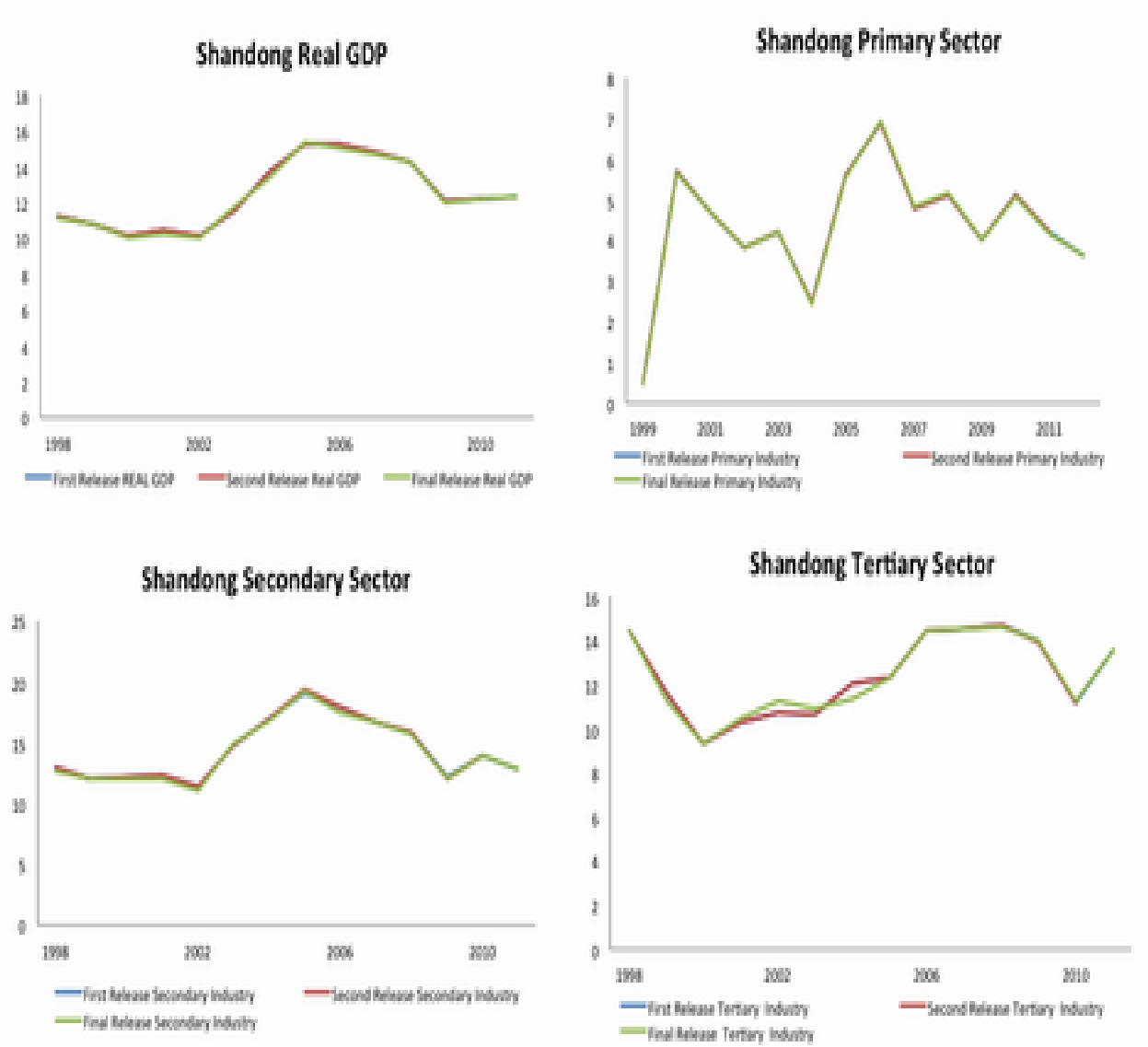
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0 (0.0)	0 (0.0)	0.02 (0.03)	-0.01 (0.01)
Maximum	0	0	0.3	0
Minimum	0	0	-0.1	-0.1
Std. Dev	0	0	0.09	0.03
Skewness	n/a	n/a	2.4	-3.0
Kurtosis	n/a	n/a	8.5	10.1
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 68: Shandong Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.09** (0.04)	-0.004 (0.012)	-0.13* (0.07)	-0.01 (0.09)
Maximum	0.13	0.1	0.25	0.5
Minimum	-0.3	-0.1	-0.46	-0.64
Std. Dev	0.1	0.04	0.23	0.3
Skewness	0.2	0.2	0.17	-0.4
Kurtosis	2.5	1.7	1.9	3.1
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 15: Shangdong



Henan Province

Table 69: Henan Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.3	5.7	13.6	11.0
Maximum	14.6	12.8	18.1	14.1
Minimum	8.0	-2.5	7.8	9.3
Std. Dev	2.3	3.3	3.5	1.5
Skewness	0.2	-0.4	-0.1	0.7

Kurtosis	1.6	5.0	1.6	2.4
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 70: Henan Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.3	5.7	13.5	11.0
Maximum	14.6	12.8	18.1	14.1
Minimum	8.1	-2.5	7.8	9.2
Std. Dev	2.3	3.3	3.5	1.5
Skewness	0.2	-0.4	-0.1	0.7
Kurtosis	1.6	5.0	1.6	2.5
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 71: Henan Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0 (0.0)	0 (0.0)	-0.03 (0.03)	0.03 (0.05)
Maximum	0	0	0	0.5
Minimum	0	0	-0.3	-0.2
Std. Dev	0	0	0.09	0.2
Skewness	n/a	n/a	-3.0	2.2
Kurtosis	n/a	n/a	10.1	8.0
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 72: Henan Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.09 (0.02)	0.002* (0.001)	0.009 (0.02)	-0.05 (0.03)
Maximum	0.1	0.01	0.1	0.2
Minimum	-0.1	-0.004	-0.1	-0.2
Std. Dev	0.07	0.004	0.05	0.1
Skewness	-0.09	-0.3	0.1	0.5
Kurtosis	2.2	1.9	3.6	3.3
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 16: Henan

Hubei Province

Table 73: Hubei Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.5	4.1	13.8	11.8
Maximum	14.8	6.9	20.2	17.7
Minimum	8.4	0.2	9.7	9.5
Std. Dev	2.2	2.0	3.2	2.2
Skewness	0.0	-0.4	0.2	1.4

Kurtosis	1.5	2.1	2.1	5.0
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 74: Hubei Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.2	4.1	13.4	12.0
Maximum	14.8	6.9	20.2	15.9
Minimum	7.8	-0.7	8.2	10.6
Std. Dev	2.4	2.1	3.6	1.4
Skewness	0.04	-0.7	0.2	1.5
Kurtosis	1.5	2.7	1.9	4.6
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 75: Hubei Descriptive Statistics of First Revisions (in percentage points)

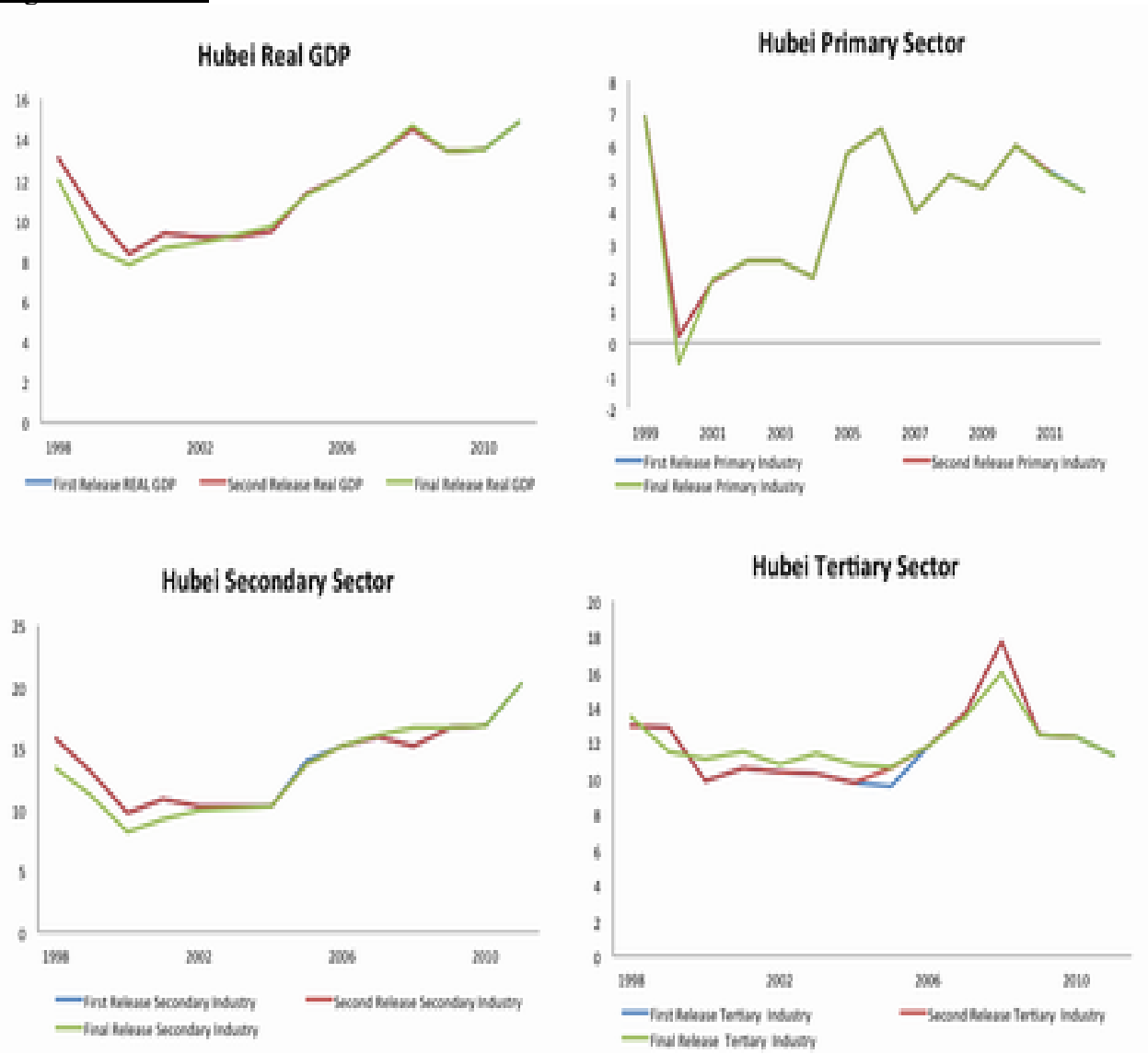
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0 (0.0)	0 (0.0)	-0.03 (0.03)	0.1 (0.1)
Maximum	0	0	0	1.1
Minimum	0	0	-0.3	0
Std. Dev	0	0	0.09	0.3
Skewness	n/a	n/a	-3.0	3.0
Kurtosis	n/a	n/a	10.1	10.1
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 76: Hubei Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.3* (0.18)	-0.1 (0.08)	-0.6 (0.35)	0.3 (0.31)
Maximum	0.3	0.05	1.6	1.1
Minimum	-1.7	-0.8	-2.4	-1.8
Std. Dev	0.6	0.3	1.2	1.0
Skewness	-1.0	-2.8	0.09	-1.0
Kurtosis	3.0	9.0	2.4	2.7
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 17: Hubei



Guangdong Province

Table 77: Guangdong Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.9	3.8	13.8	10.8
Maximum	14.7	4.9	20.0	13.7
Minimum	9.5	2.3	9.2	8.7
Std. Dev	2.1	0.9	3.3	1.7
Skewness	0.3	-0.7	0.4	0.5

Kurtosis	1.4	2.1	2.1	2.0
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 78: Guangdong Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	12.3	3.8	14.0	11.9
Maximum	14.8	4.9	20.3	14.3
Minimum	9.7	2.2	9.2	9.8
Std. Dev	2.0	1.0	2.2	1.4
Skewness	0.2	-0.7	0.4	0.3
Kurtosis	1.4	2.1	2.1	1.8
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 79: Guangdong Descriptive Statistics of First Revisions (in percentage points)

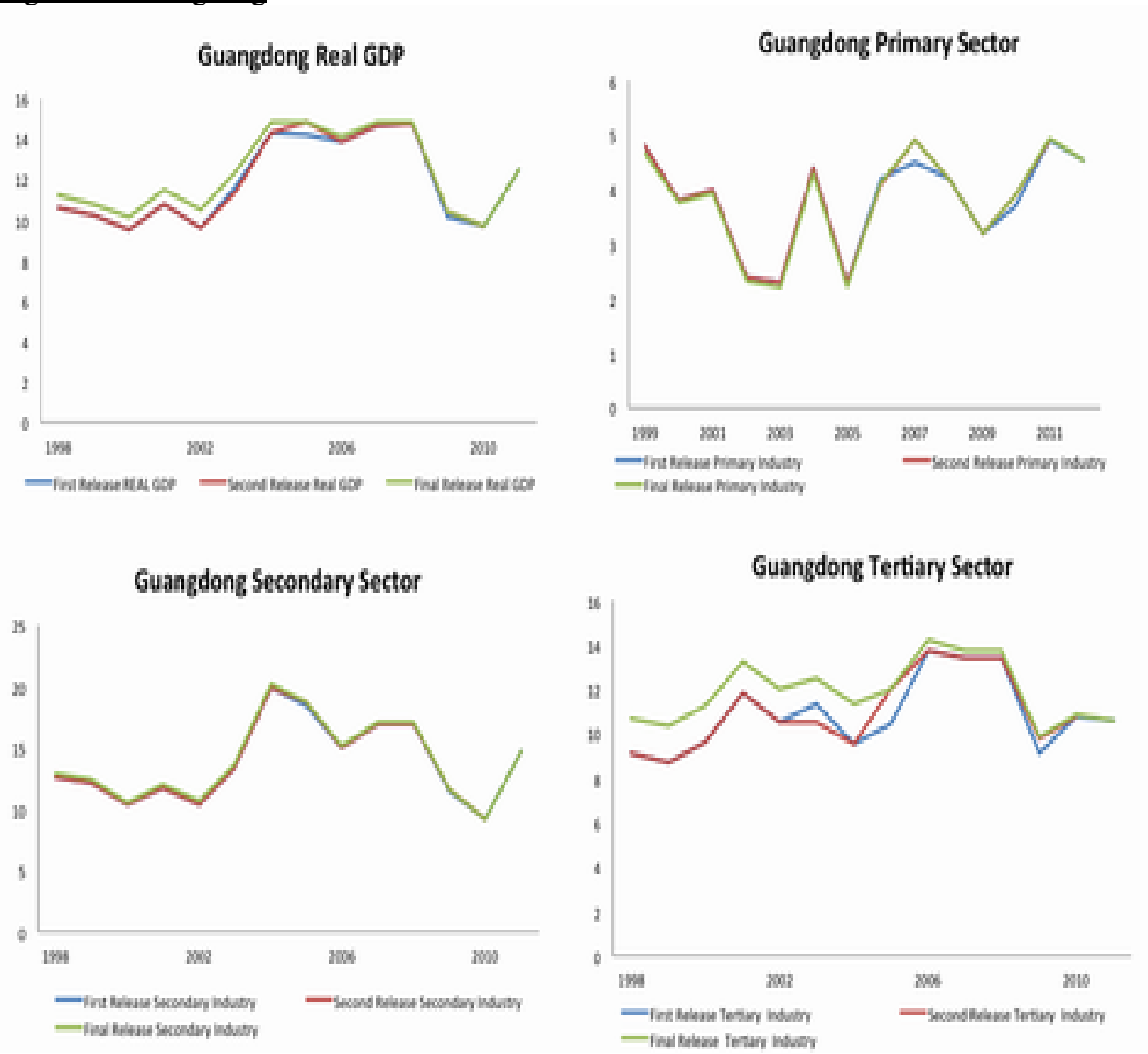
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.05 (0.06)	0.04 (0.04)	0.05 (0.04)	0.13 (0.16)
Maximum	0.6	0.4	0.4	1.6
Minimum	-0.3	-0.1	0.0	-0.8
Std. Dev	0.2	0.1	0.1	0.6
Skewness	1.3	2.0	2.2	1.4
Kurtosis	5.1	5.9	6.5	5.5
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 80: Guangdong Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.5*** (0.07)	-0.02 (0.05)	0.2*** (0.02)	1.2*** (0.2)
Maximum	0.9	0.4	0.4	1.8
Minimum	0.2	-0.1	0.1	0.3
Std. Dev	0.2	0.1	0.1	0.6
Skewness	-0.5	2.4	-0.4	-0.8
Kurtosis	2.4	7.6	2.2	2.0
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 18: Guangdong



Guangxi Province

Table 81: Guangxi Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.1	5.6	14.4	11.0
Maximum	15.1	11.2	20.7	15.4
Minimum	7.3	0.2	6.4	1.5
Std. Dev	2.7	2.4	5.2	3.4
Skewness	-0.1	0.1	-0.4	-1.5

Kurtosis	1.5	4.4	1.6	5.4
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 82: Guangxi Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.3	5.7	14.2	11.4
Maximum	15.1	11.2	20.7	14.6
Minimum	7.9	0.2	6.4	7.3
Std. Dev	2.6	2.5	5.3	1.9
Skewness	-0.1	-0.03	-0.3	-0.3
Kurtosis	1.5	4.1	1.6	3.0
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 83: Guangxi Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0 (0.0)	-0.02 (0.02)	0 (0.0)	0.008 (0.008)
Maximum	0	0	0	0.1
Minimum	0	-0.2	0	0
Std. Dev	0	0.06	0	0.03
Skewness	n/a	-3.0	n/a	3.0
Kurtosis	n/a	10.1	n/a	10.1
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 84: Guangxi Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.18* (0.1)	0.1 (0.1)	-0.2 (0.1)	0.5 (0.8)
Maximum	0.9	1.0	0.05	5.8
Minimum	-0.05	-0.03	-1.1	-5.6
Std. Dev	0.3	0.3	0.4	2.7
Skewness	1.5	1.9	-1.7	-0.3
Kurtosis	4.0	5.0	4.6	4.3
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 19: Guangxi

Hainan Province

Table 85: Hainan Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.1	8.2	12.4	10.6
Maximum	16.0	10.8	25.8	22.2
Minimum	4.8	5.4	2.0	5.7
Std. Dev	2.9	1.5	6.7	4.8
Skewness	0.4	-0.1	0.4	1.4

Kurtosis	3.1	2.3	2.2	3.9
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 86: Hainan Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.3	8.2	12.5	10.7
Maximum	16.0	10.8	24.4	20.1
Minimum	4.7	5.4	2.2	5.5
Std. Dev	3.0	1.5	6.5	4.2
Skewness	0.4	-0.1	0.2	0.9
Kurtosis	3.0	2.3	1.9	2.7
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 87: Hainan Descriptive Statistics of First Revisions (in percentage points)

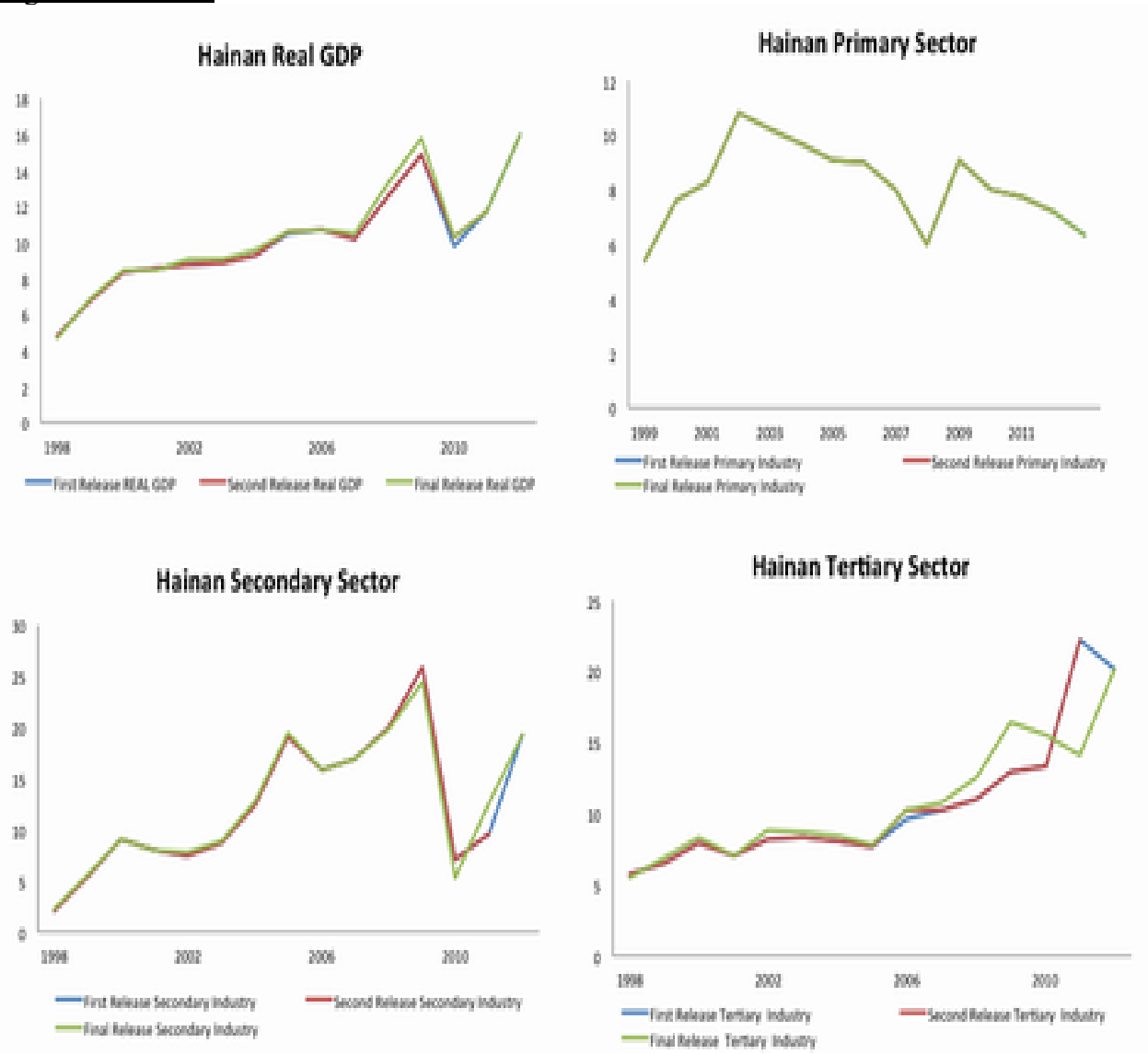
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.05 (0.04)	0 (0.0)	0.001 (0.01)	0.05 (0.05)
Maximum	0.5	0	0.1	0.7
Minimum	0	0	0	0
Std. Dev	0.1	0	0.02	0.2
Skewness	2.0	n/a	3.2	3.2
Kurtosis	10.2	n/a	11.1	11.1
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 88: Hainan Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.2** (0.1)	0 (0.002)	0.01 (0.1)	0.7** (0.3)
Maximum	1.0	0.01	0.5	3.4
Minimum	-0.1	-0.01	-1.4	-0.2
Std. Dev	0.3	0.01	0.5	1.0
Skewness	1.2	0.3	-2.2	2.0
Kurtosis	3.8	2.9	7.4	6.4
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 20: Hainan



Chongqing Province

Table 88: Chongqing Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.7	3.6	14.8	12.0
Maximum	17.1	9.5	22.7	14.5
Minimum	7.6	-5.5	7.1	8.1
Std. Dev	2.9	3.5	4.3	2.1
Skewness	0.3	-1.0	0.1	-0.5

Kurtosis	2.1	4.6	2.3	2.0
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 89: Chongqing Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.9	3.5	15.1	11.2
Maximum	17.1	9.5	22.7	14.1
Minimum	7.8	-5.5	7.2	7.6
Std. Dev	2.9	3.5	4.3	2.2
Skewness	0.3	-1.0	0.001	-0.2
Kurtosis	2.0	4.5	2.3	1.5
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 90: Chongqing Descriptive Statistics of First Revisions (in percentage points)

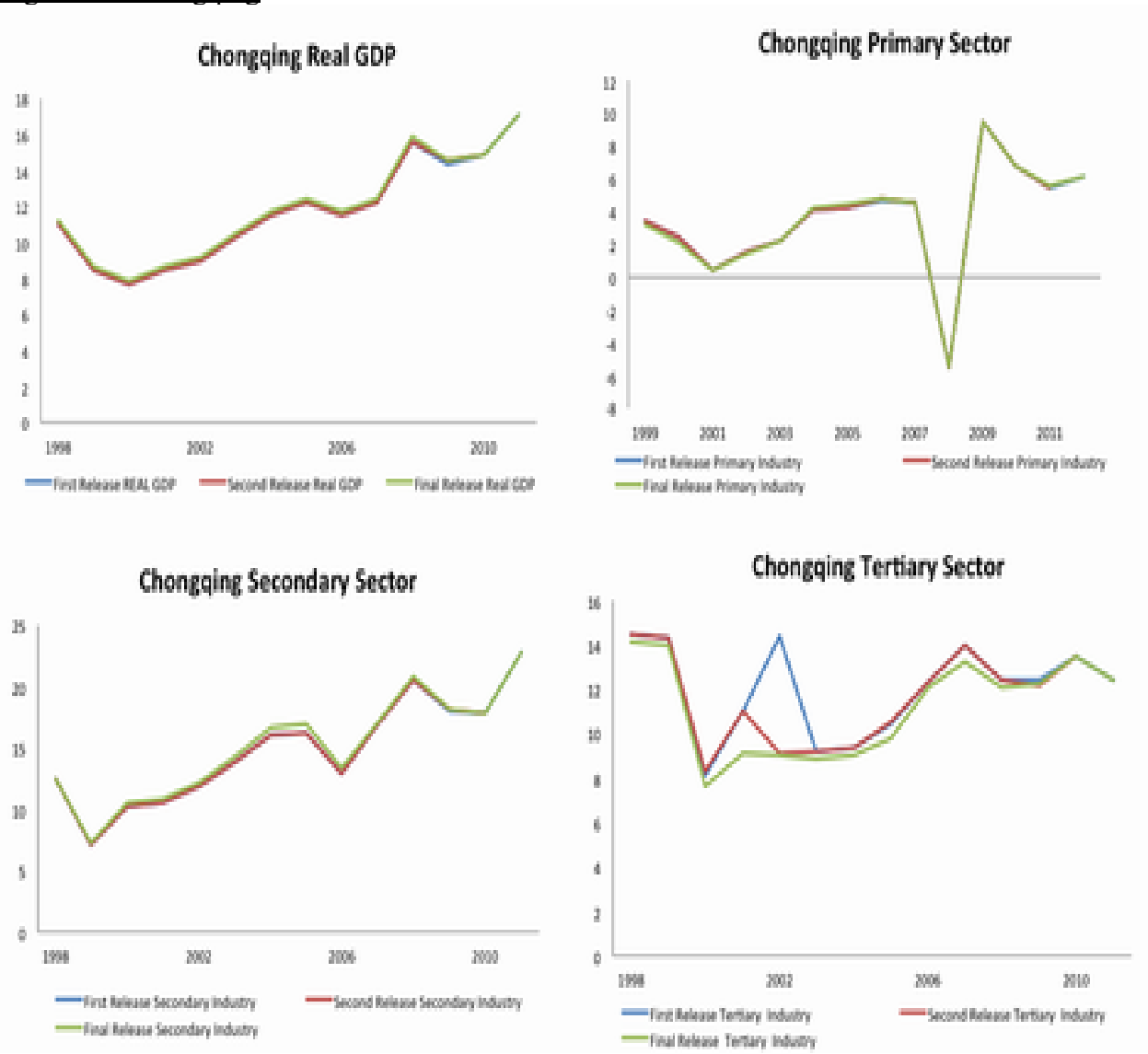
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.02 (0.02)	0.01 (0.01)	0.02 (0.02)	-0.4 (0.44)
Maximum	0.2	0.1	0.2	0.2
Minimum	0	0	0	-5.3
Std. Dev	0.06	0.03	0.06	1.5
Skewness	3.0	3.0	3.0	-3.0
Kurtosis	10.1	10.1	10.1	10.0
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 91: Chongqing Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.2*** (0.01)	-0.02 (0.04)	0.4*** (0.06)	-1.0** (0.5)
Maximum	0.3	0.2	0.7	-0.2
Minimum	0.2	-0.3	0.1	-5.4
Std. Dev	0.03	0.1	0.2	1.5
Skewness	2.7	-0.6	0.3	-2.4
Kurtosis	8.7	2.9	2.2	7.5
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 21: Chongqing



Sichuan Province

Table 92: Sichuan Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.1	4.2	15.1	10.4
Maximum	15.1	5.9	22.0	13.5
Minimum	5.6	2.2	4.4	8.3
Std. Dev	2.6	1.1	4.5	1.4
Skewness	-0.2	-0.1	-0.6	0.6

Kurtosis	2.6	1.8	3.2	2.9
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 93: Sichuan Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.4	4.7	14.2	11.8
Maximum	15.1	7.3	22.0	15.3
Minimum	6.6	1.0	6.0	8.6
Std. Dev	2.4	1.6	5.0	1.7
Skewness	-0.1	-0.7	0.005	0.2
Kurtosis	2.2	3.1	1.7	2.8
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 94: Sichuan Descriptive Statistics of First Revisions (in percentage points)

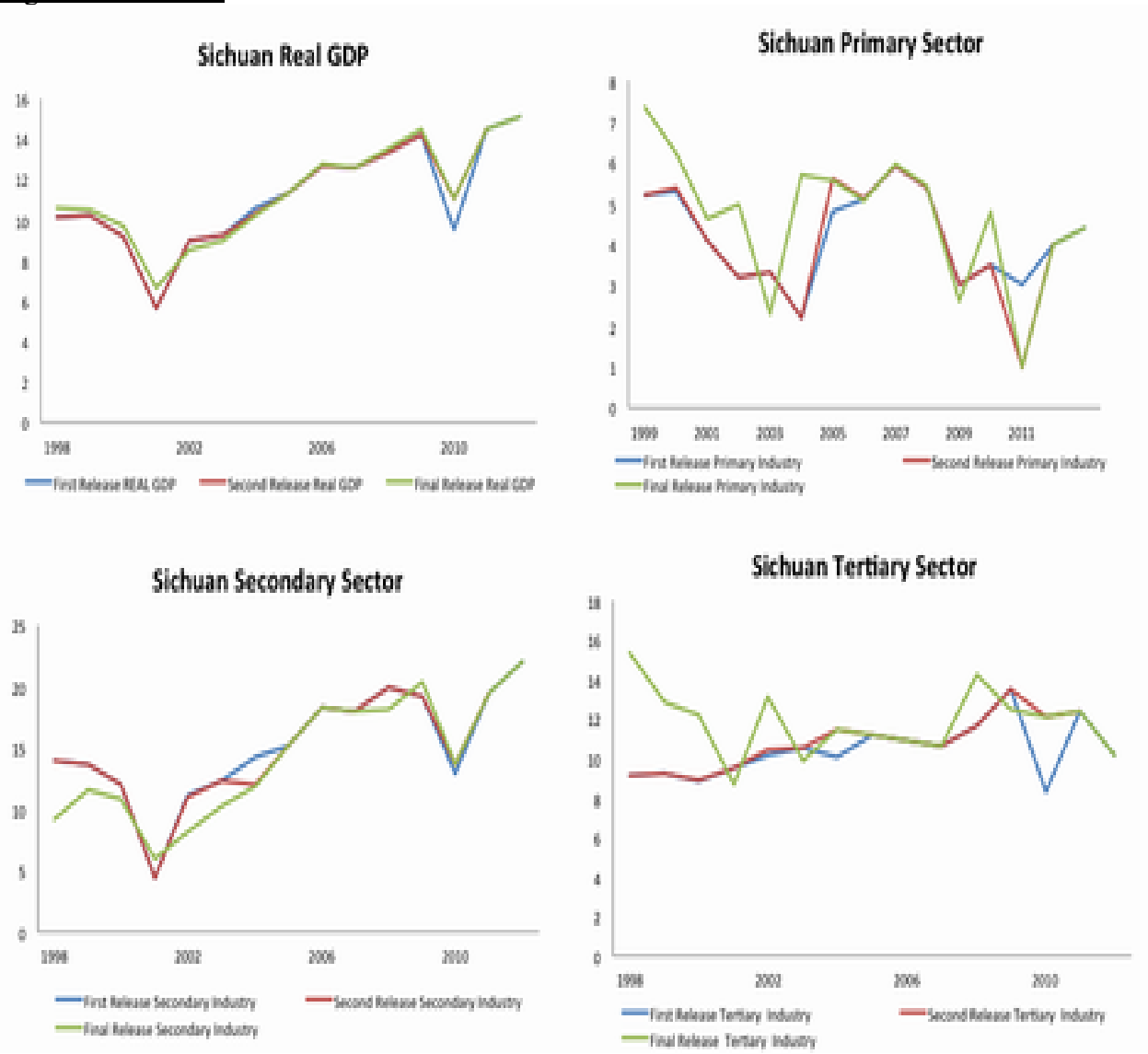
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.08	-0.1	-0.11	0.35
Maximum	1.5	0.8	0.8	3.8
Minimum	-0.3	-2.0	-2.3	0
Std. Dev	0.4	0.6	0.7	1.1
Skewness	2.9	-2.3	-2.5	2.6
Kurtosis	10.3	8.8	9.1	8.5
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 95: Sichuan Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.23	0.51	-0.91	1.4
Maximum	1.0	0.8	1.6	6.2
Minimum	-0.5	-2.0	-4.7	-1.0
Std. Dev	0.4	1.2	1.8	2.3
Skewness	0.3	0.7	-0.2	0.7
Kurtosis	2.7	3.0	2.4	2.5
Observations	15	15	15	15

Sample	1997-2011	1997-2011	1997-2011	1997-2011

Figure 22: Sichuan



Guizhou Province

Table 95: Guizhou Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.3	3.9	12.5	11.8
Maximum	13.7	6.5	16.6	18
Minimum	8.3	1.1	8.9	9.1
Std. Dev	1.7	1.5	2.0	2.3
Skewness	0.5	-0.4	0.008	1.1

Kurtosis	2.0	2.7	2.8	4.6
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 96: Guizhou Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.6	3.9	12.2	12.7
Maximum	14.8	6.8	16.6	21.1
Minimum	8.4	1.1	7.6	7.3
Std. Dev	2.0	1.5	2.3	3.7
Skewness	0.6	-0.3	-0.5	0.7
Kurtosis	2.1	2.8	3.2	2.8
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 97: Guizhou Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.05 (0.1)	0.02 (0.02)	-0.1 (0.06)	0.2 (0.22)
Maximum	1.1	0.3	0	2.9
Minimum	-0.4	0	-0.8	0
Std. Dev	0.3	0.1	0.2	0.8
Skewness	25	3.2	-3.2	3.2
Kurtosis	9.1	11.1	11.1	11.1
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 98: Guizhou Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.3 (0.16)	0.03* (0.01)	-0.3 (0.42)	0.9 (0.63)
Maximum	1.2	0.2	3.6	0.7
Minimum	-0.4	-0.01	-2.8	-3.7
Std. Dev	0.6	0.05	1.5	2.2
Skewness	0.7	2.1	1.2	-0.4
Kurtosis	2.0	6.6	5.6	2.9
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 23: Guizhou

Yunnan Province

Table 99: Yunnan Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	9.7	5.2	11.0	10.8
Maximum	12.5	7.6	17.0	13.1
Minimum	6.5	3.0	4.3	8.3
Std. Dev	2.1	1.2	3.8	1.5
Skewness	-0.1	0.2	-0.1	0.03

Kurtosis	1.6	2.8	2.0	1.8
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 100: Yunnan Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	9.8	4.8	10.7	11.4
Maximum	13.3	6.3	16.8	15.1
Minimum	6.8	3.0	3.9	9.0
Std. Dev	2.0	0.9	3.8	1.7
Skewness	0.2	-0.3	-0.1	0.4
Kurtosis	1.8	2.6	2.2	2.8
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 101: Yunnan Descriptive Statistics of First Revisions (in percentage points)

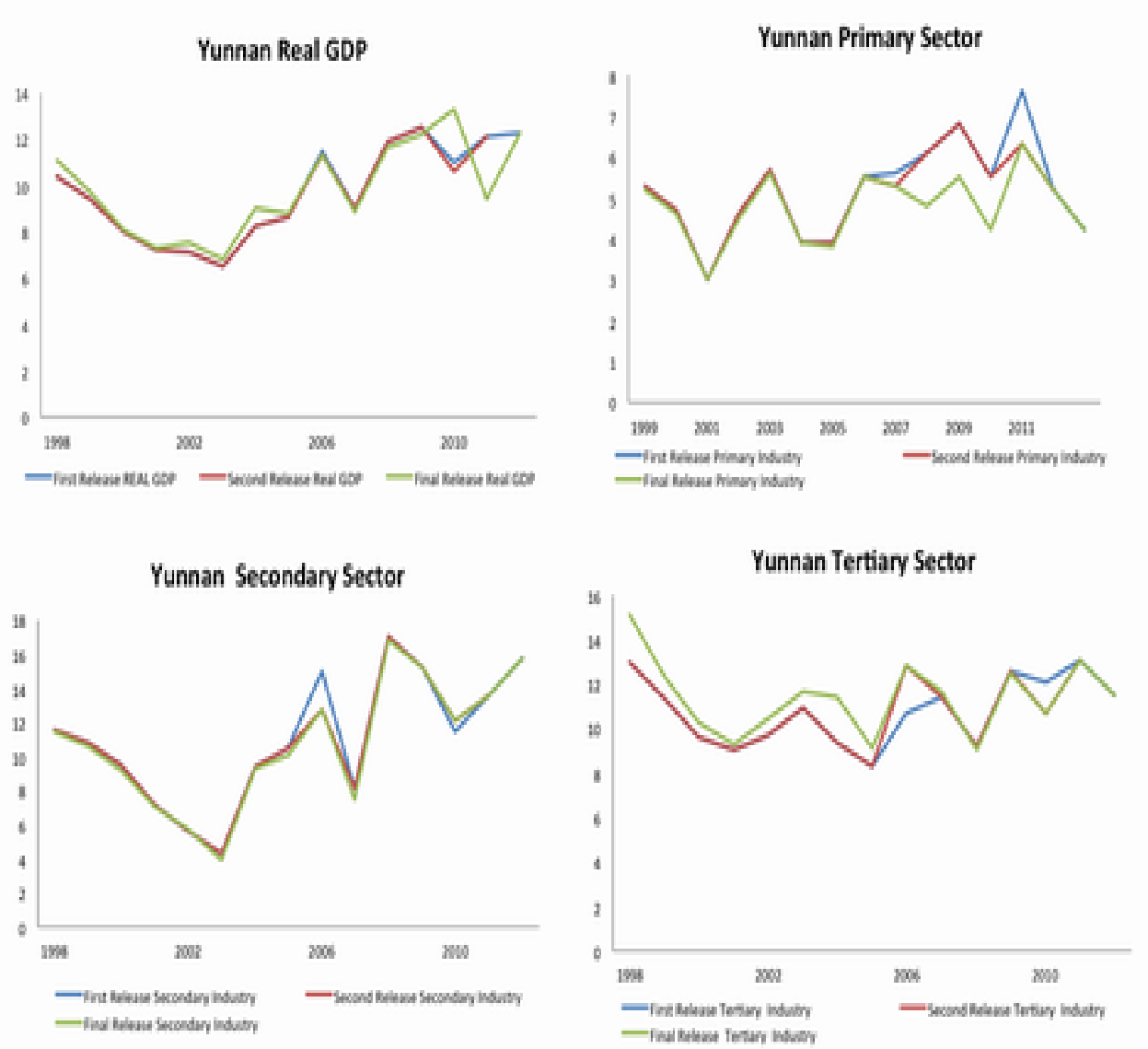
	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	-0.05 (0.03)	-0.1 (0.10)	-0.1 (0.19)	0.05 (0.2)
Maximum	0	0	0.7	2.1
Minimum	-0.4	-1.3	-2.3	-1.4
Std. Dev	0.1	0.4	0.7	0.7
Skewness	-2.4	-3.0	-2.7	1.2
Kurtosis	7.1	10.0	9.6	7.1
Observations	12	12	12	12
Sample	1998-2009	1998-2009	1998-2009	1998-2009

Table 102: Yunnan Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.2 (0.10)	-0.4** (0.2)	-0.4* (0.18)	0.9** (0.23)
Maximum	0.8	0.002	0.1	2.1
Minimum	-0.3	-1.3	-2.3	-0.2
Std. Dev	0.4	0.6	0.6	0.8
Skewness	0.3	-1.1	-2.5	0.5
Kurtosis	2.1	2.3	8.4	2.0
Observations	11	11	11	11

Sample	1998-2008	1998-2008	1998-2008	1998-2008

Figure 24: Yunnan



Tibet Province

Table 103: Tibet Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.8	4.0	17.3	13.2
Maximum	14.0	6.0	34.7	16.6
Minimum	9.4	1.7	7.9	6.9
Std. Dev	1.5	1.3	9.4	6.3
Skewness	-0.4	0.2	-0.6	2.2

Kurtosis	1.9	2.5	5.4	8.3
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 104: Tibet Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	12.2	3.9	17.2	13.8
Maximum	14.0	6.2	23.6	16.7
Minimum	9.4	1.7	7.9	9.7
Std. Dev	1.0	1.3	4.7	2.1
Skewness	-0.5	0.1	-0.4	-0.5
Kurtosis	3.4	2.0	2.2	2.2
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

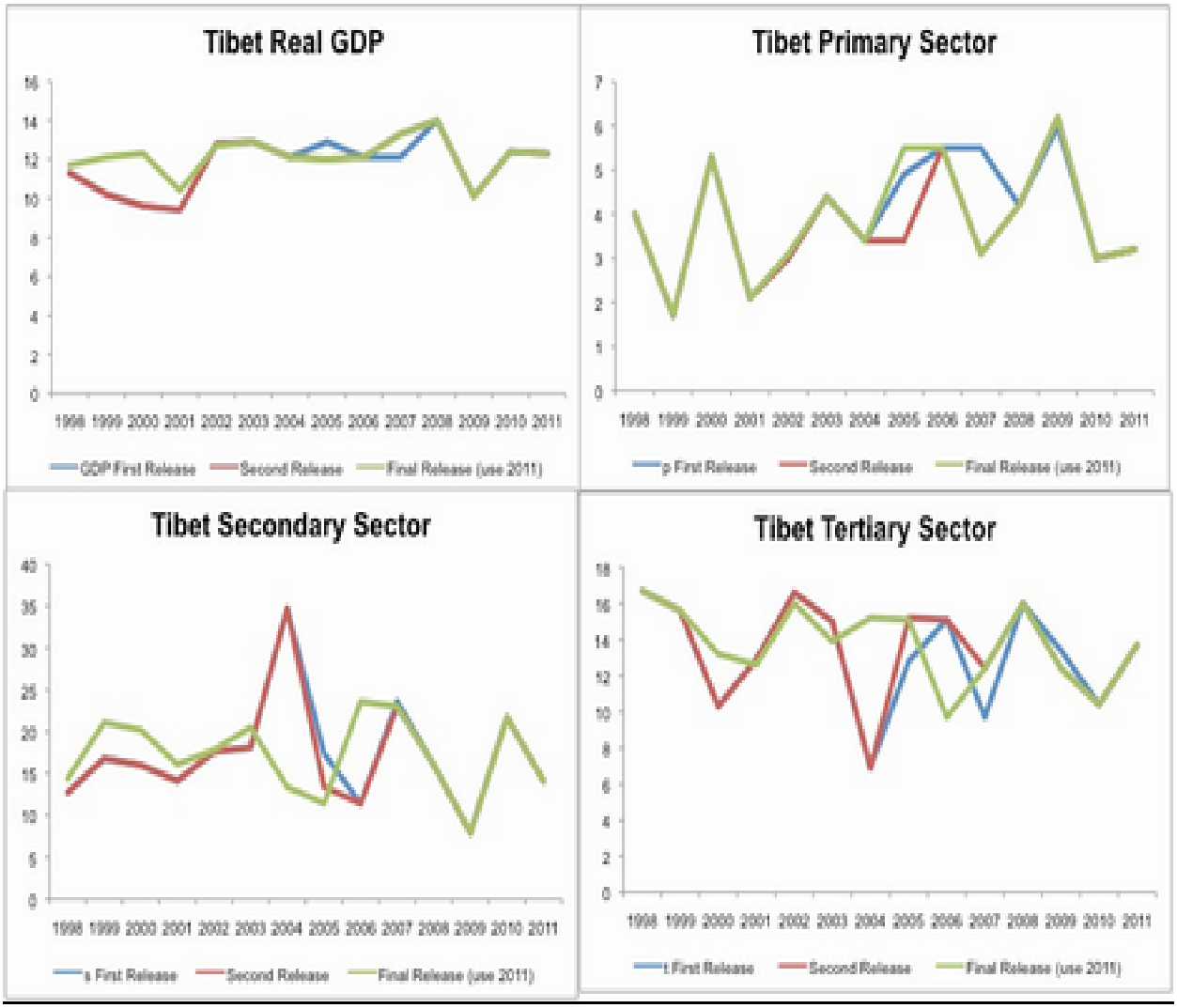
Table 105: Tibet Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.02	-0.3	-0.3	0.3
Maximum	1.2	0	0	2.7
Minimum	-0.9	-2.4	-4.0	-1.0
Std. Dev	0	0	5.4	2.5
Skewness	n/a	n/a	-0.5	0.8
Kurtosis	n/a	n/a	6.6	6.8
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 106: Tibet Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.44	-0.1	-0.06	0.6
Maximum	2.7	0.6	12.2	8.3
Minimum	-0.9	-2.4	-21.3	-5.4
Std. Dev	1.8	2.1	11.9	6.5
Skewness	-0.7	-0.3	-0.3	-1.2
Kurtosis	3.8	1.9	2.2	4.9
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 25: Tibet



Shaanxi Province

Table 107: Shaanxi Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.7	4.9	14.3	10.9
Maximum	15.6	8.6	18.8	15.3
Minimum	9.4	1.7	12.7	6.9
Std. Dev	2.5	3.6	3.0	2.6
Skewness	0.4	-0.3	0.05	-0.2
Kurtosis	2.0	2.8	1.6	3.4
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 108: Shaanxi Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	12.6	4.7	14.7	12.9
Maximum	16.4	8.6	18.5	16.5
Minimum	9.8	-2.3	11.1	9.7
Std. Dev	2.1	3.2	2.5	2.3
Skewness	0.3	-0.8	0.1	0.14
Kurtosis	1.9	2.8	1.8	1.7
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

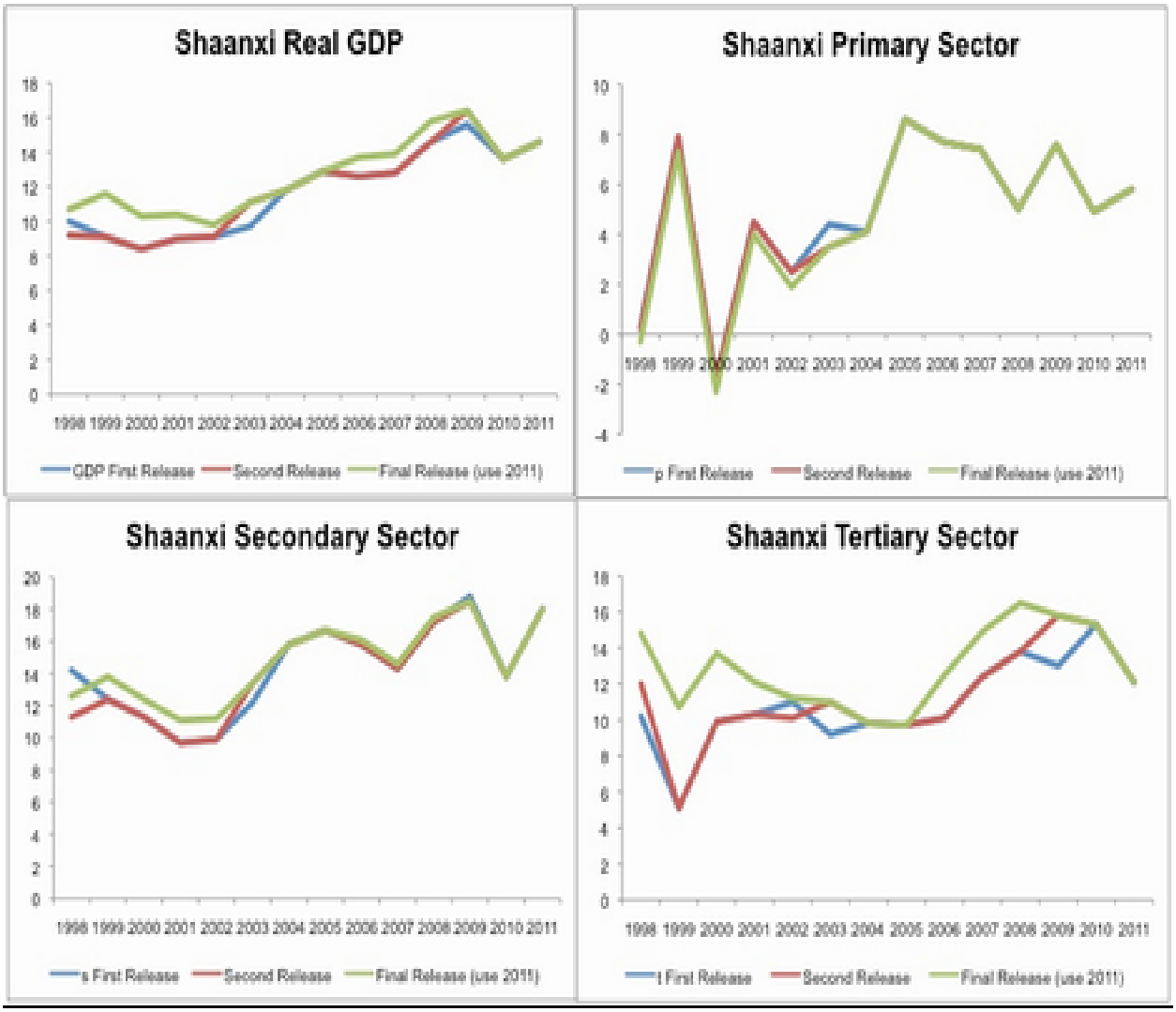
Table 109: Shaanxi Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.1	-0.07	-0.14	0.39
Maximum	1.4	0	1.2	2.8
Minimum	-0.8	-0.9	-2.9	-0.9
Std. Dev	0.5	0.6	0.6	0.8
Skewness	0.3	-2.7	-0.3	3.0
Kurtosis	4.5	8.3	5.8	10.0
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 110: Shaanxi Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.9	-0.3	0.39*	2.01
Maximum	2.5	0	1.4	5.6
Minimum	0	-0.9	-1.6	0
Std. Dev	0.8	6.0	1.6	3.4
Skewness	0.7	-0.6	0.04	0.5
Kurtosis	2.2	2.6	1.7	2.1
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 25: Shaanxi



Gansu Province

Table 111: Gansu Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.3	4.4	11.8	11
Maximum	12.3	7.5	16.8	13.4
Minimum	8.3	-2.0	8.4	9.4
Std. Dev	1.4	3.1	2.4	1.5
Skewness	-0.01	-0.8	0.7	0.1
Kurtosis	1.5	3.1	2.6	1.4
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 112: Gansu Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.5	4.4	11.4	12.2
Maximum	12.3	7.6	16.8	14.5
Minimum	9.0	-1.9	8.4	9.9
Std. Dev	1.1	2.8	2.6	1.4
Skewness	0.2	-1.2	0.7	0.1
Kurtosis	1.7	3.4	2.4	2.0
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

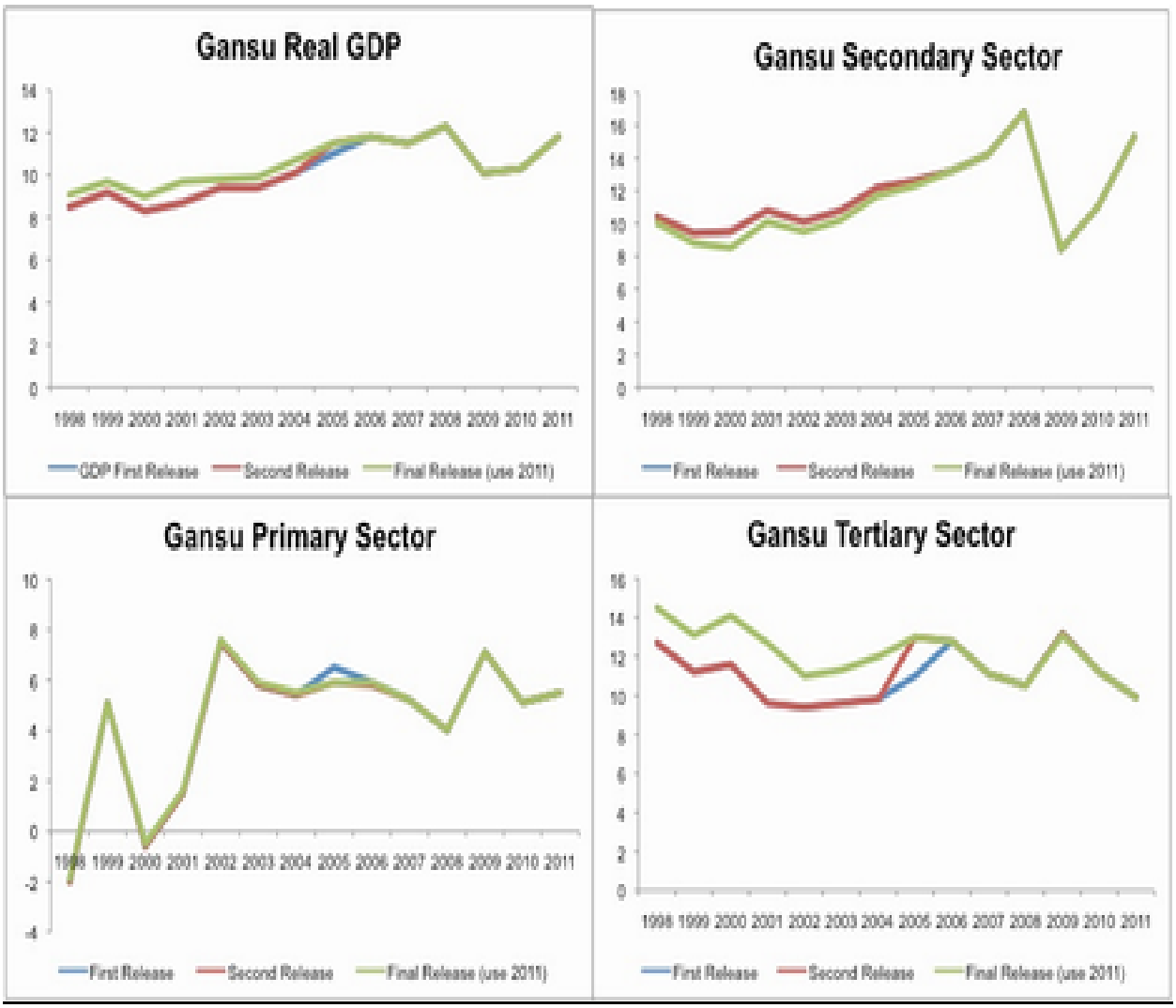
Table 113: Gansu Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean (SE)	0.04	-0.05	0	0.14
Maximum	0.6	0	0	2
Minimum	0	-0.6	0	0
Std. Dev	0.2	0.03	0.1	0.04
Skewness	3.0	3.0	-3.0	3.0
Kurtosis	10.1	10.1	10.1	10.1
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 114: Gansu Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.3	0	-0.33	1.2
Maximum	1.0	0.1	0	3.1
Minimum	0	-0.6	-0.7	-0.1
Std. Dev	1.1	5.1	1.2	1.5
Skewness	-1.6	-0.6	0.4	-0.3
Kurtosis	4.8	3.5	2.5	2.2
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 26: Gansu



Qinghai Province

Table 115: Qinghai Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.4	3.5	14.4	10.4
Maximum	15.3	5.9	19.3	12.1
Minimum	8.2	-4.0	9.4	9.0
Std. Dev	2.1	2.4	3.1	1.0
Skewness	-0.02	-2.1	-0.3	0.4
Kurtosis	2.0	7.4	1.8	2.3
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 116: Qinghai Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.5	3.5	14.3	11.0
Maximum	15.3	5.9	19.3	14.2
Minimum	8.1	-4.0	9.4	9.1
Std. Dev	2.1	2.5	2.9	1.4
Skewness	-0.1	-2.1	-0.3	0.9
Kurtosis	2.0	7.3	1.9	2.8
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

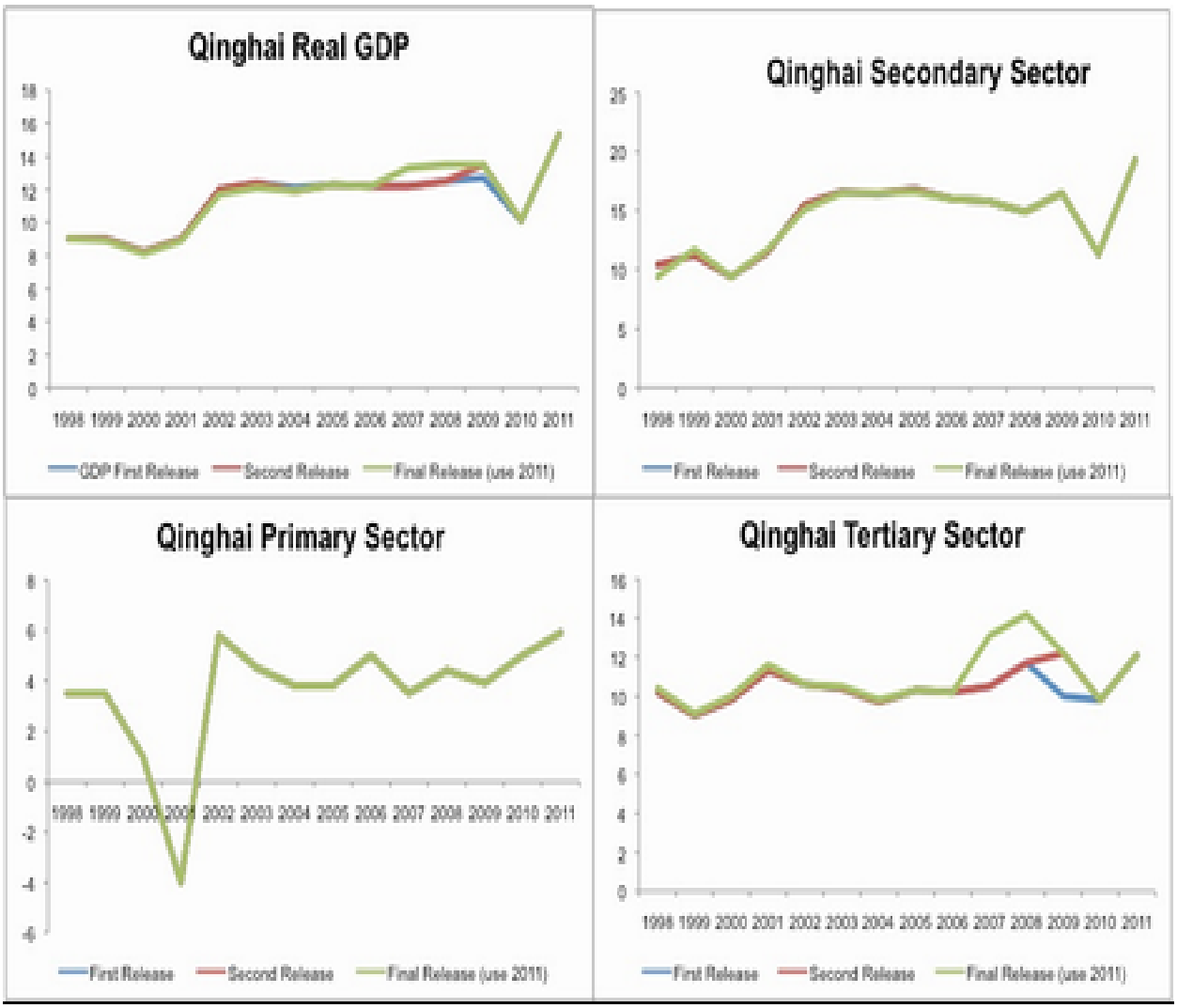
Table 117: Qinghai Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.04	0	0.007	0.15
Maximum	0.8	0	0	2.2
Minimum	-0.2	0	0	0
Std. Dev	0.3	0	0.03	0.7
Skewness	2.5	n/a	-3.0	3.0
Kurtosis	8.8	n/a	10.1	10.1
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 118: Qinghai Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.13	0	-0.06	0.59
Maximum	1.1	0	0.5	2.6
Minimum	-0.3	0	-1.0	0
Std. Dev	1.0	3.7	1.5	1.5
Skewness	1.0	1.6	0.7	0.7
Kurtosis	3.6	3.9	2.9	2.4
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 27: Qinghai



Ningxia Province

Table 119: Ningxia Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	10.9	5.1	13.6	9.8
Maximum	13.5	9.8	18.8	11.6
Minimum	7.6	-2.0	7.7	8.4
Std. Dev	1.8	4.5	3.6	1.0
Skewness	-0.2	1.1	-0.2	0.3
Kurtosis	2.0	5.3	1.8	2.2
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 120: Ningxia Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	11.0	5.2	13.7	10.7
Maximum	13.5	9.8	18.6	13.5
Minimum	7.9	-1.9	7.9	8.9
Std. Dev	1.7	2.9	3.2	1.2
Skewness	-0.3	-0.8	-0.5	0.7
Kurtosis	1.9	3.7	2.2	2.0
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

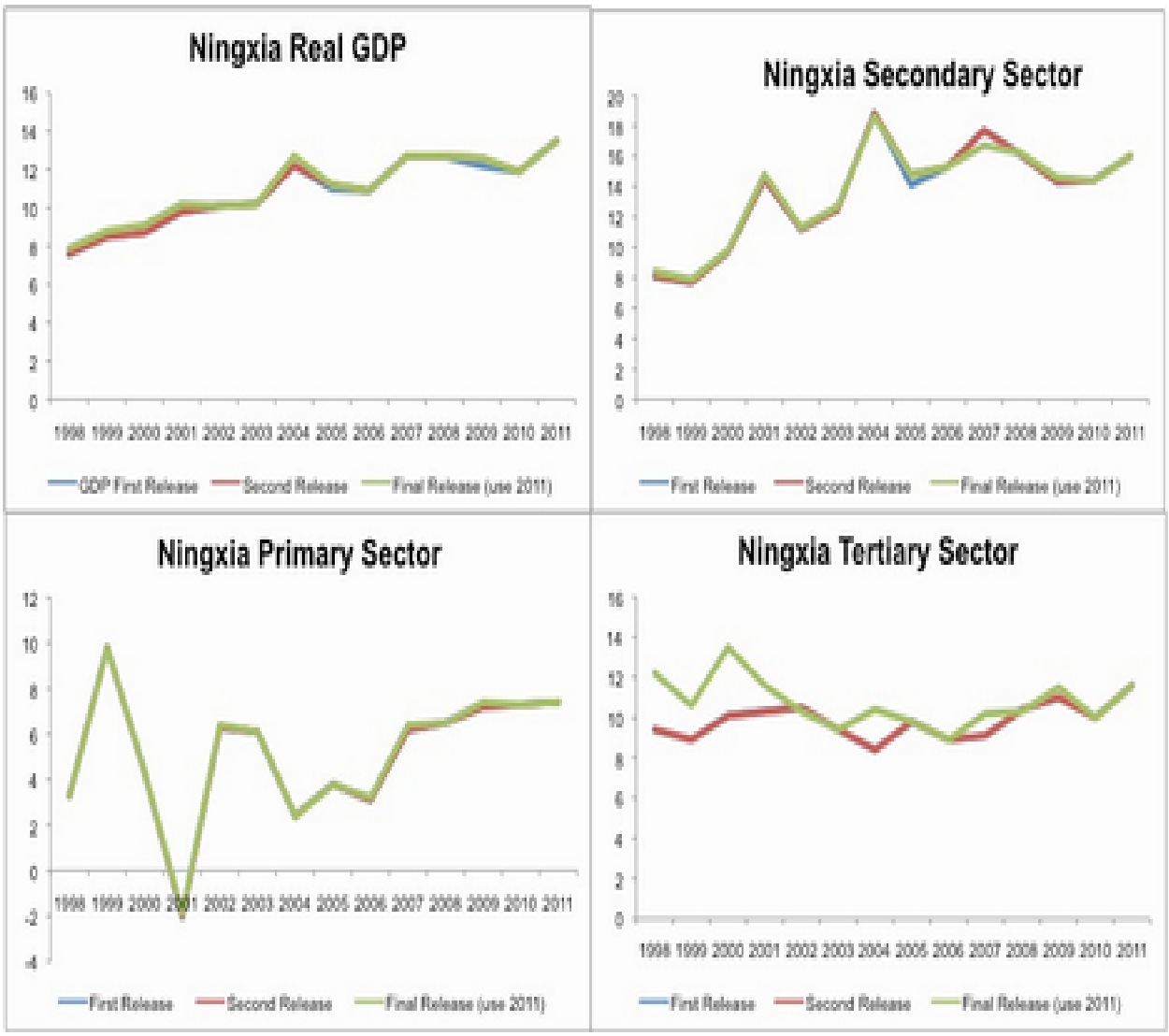
Table 121: Ningxia Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.04	0	0.05	0
Maximum	0.5	0	0.7	2.0
Minimum	0	0	0	0
Std. Dev	0.1	0	0.06	0.6
Skewness	3.0	n/a	-3.0	3.0
Kurtosis	10.1	n/a	10.1	10.1
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Table 122: Ningxia Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.17	0.05	0.08	0.89
Maximum	0.5	0.2	0.7	3.4
Minimum	0	0	-1.0	-0.2
Std. Dev	1.4	6.4	3.1	1.7
Skewness	-0.6	-0.6	0.3	0.6
Kurtosis	3.0	3.1	2.4	2.8
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 29: Ningxia



Xinjiang Province

Table 123: Xinjiang Descriptive Statistics of First Release Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	9.7	5.7	10.7	10.2
Maximum	12.2	10.8	14.4	14.3
Minimum	7.1	2.7	6.7	7.1
Std. Dev	1.92	2.19	2.75	1.98
Skewness	-0.38	0.63	-0.18	0.28
Kurtosis	-1.56	0.77	-1.66	0.05
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 124: Xinjiang Descriptive Statistics of Latest Available Data (Growth Rates)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	9.6	5.7	9.9	11
Maximum	12.2	10.8	14.4	14.3
Minimum	7.5	2.7	5.2	9.2
Std. Dev	1.7	2.1	3.3	1.7
Skewness	0.01	0.7	-0.03	0.39
Kurtosis	-1.77	1.1	-1.5	-0.93
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 125: Xinjiang Descriptive Statistics of First Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	0.02	0.02	0.01	0.03
Maximum	0.3	0.6	0.4	1.1
Minimum	0	-0.1	-0.3	-0.5
Std. Dev	0.12	0.029	0.22	0.12
Skewness	0.35	-3.5	-2.1	3.5
Kurtosis	12	12	2.97	12
Observations	15	15	15	15
Sample	1997-2011	1997-2011	1997-2011	1997-2011

Table 126: Xinjiang Descriptive Statistics of Final Revisions (in percentage points)

	GDP	PRIMARY	SECONDARY	TERTIARY
Mean	-0.18	0.32	-0.81	0.77
Maximum	0.5	0.6	0.4	1.8
Minimum	-2.6	-0.1	-8.0	-0.5
Std. Dev	1.68	3.4	3.0	2.2
Skewness	-1.04	0.51	-1.1	-0.62
Kurtosis	2.87	0.19	1.5	0.70
Observations	14	14	14	14
Sample	1998-2011	1998-2011	1998-2011	1998-2011

Figure 30: Xinjiang