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Application of measures of entropy, information content and dissimilarity of structures to business tendency survey data

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Abstract

This paper evaluates similarities between *a priori* information supplied by the business tendency surveys (that is, expectations), and *a posteriori* information (that is, realizations). A *priori* structure is defined by fractions of respondents expressing expectations, and *a posteriori* structure – by fractions of respondents declaring observed changes in economic variables (realizations). On the basis of empirical analysis of the business tendency survey data, the following conclusions have been reached:

- in case of production, distribution of increase / no change / decrease fractions is relatively uniform, leading to high entropy,
- entropy of prices is relatively low; since value of entropy allows to evaluate degree of concentration, in case of prices fractions of survey answers seems to be particularly centered on one of the three options provided in the questionnaire,
- entropy of general business conditions exhibits the highest variability which may be interpreted as volatile changes in information content of surveys from one month to another; in contrast, entropy of production is the least variable,
- public enterprises exhibit lower entropy (as measured by average) and higher variability (as measured by standard deviation) than private enterprises; that is, for public enterprises concentration of answers to the survey questions is higher and also more variable.

Keywords: tendency surveys, expectations, entropy, dissimilarity of structures

JEL codes: C49, C83

Application of measures of entropy, information content and dissimilarity of structures to business tendency survey data

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1. Introduction

The introduction of The Second Law of thermodynamics (the Law of Entropy) to mainstream economics is often attributed to H. Theil's *Economics and Information Theory* published in 1967 and subsequent applications of inequality measures proposed in this book to measurement of income inequality. Since then, entropy and other measures of information content have been interpreted in a variety of applications but remained on the fringes of economic research. Recently, linked with the notion of sustainability, the concept of entropy enjoys a renaissance in economic literature. Sustainability, defined by the World Commission on Environment and Development (WCED, 1987) as a call for continued economic expansion without environmental degradation, focuses on issues of how large the economy should be relative to the environment and how to achieve an optimal inter-temporal allocation of resources. McMahon, Mrozek (1997) point out that the central issue of the sustainability debate is whether neoclassical theories of resource use should be modified to incorporate the Second Law of thermodynamics because "(…) the entropy law imposes an additional constraint of directionality on all physical processes not reflected by conservation alone." (p. 502). Current literature features scholarly analyses of information theory, complex systems analysis and environmental economics next to impassioned calls for a whole new theory of economics centered on minimization of entropy generated by social and economic activities of mankind (Rifkin and Howard, 2008).

In this paper, I return to the original, information theory definition of entropy to evaluate similarities between *a priori* information supplied by the business tendency surveys (that is,

expectations), and *a posteriori* information (that is, realizations). The idea is motivated by a paper by Wędrowska (2009) who proposes to interpret the information content of a change of structure from its *a priori* to *a posteriori* form as a measure of degree of similarity (or dissimilarity) of structures. In this paper, *a priori* structure is defined by fractions of respondents expressing expectations, and *a posteriori* structure – by fractions of respondents declaring observed changes in economic variables (realizations).

There are two reasons for undertaking such analysis. First, measures of similarity may provide the means to evaluate accuracy of expectations (predictions) in the business tendency survey. The larger the similarity between expectations and realizations the better predictive power of expectations. Second, the survey on which empirical part of the paper is based defines expectations as changes "expected for the next 3-4 months". Information content may help to identify the actual forecast horizon used by respondents. This result may, in turn, be useful in other formal analyses of expectations, for example establishing appropriate number of lags in econometric models with expectations or defining dependent variables in quantification models.

In section 2, measures of entropy, information content and dissimilarity of structures are introduced. Business tendency survey data are described in section 3. Empirical results are reported in sections 4 (measures of entropy) and 5 (measures of dissimilarity of structures). Section 6 concludes.

2. Measures of entropy, information content and dissimilarity of structures

Following Wędrowska (2009), let us define structure S^n as a vector $S^n = [s_1, s_2, \ldots, s_n]^T \in R^n$ which elements s_i ($i = 1, 2, \ldots, n$) fulfill two conditions:

$$0 \leq s_i \leq 1, \tag{1}$$

$$\sum_{i=1}^{n} s_i = 1. \tag{2}$$

Structure S^n is therefore fully described by a vector of fractions (structure elements) summing to a total of 1.

Amount of information provided by a message (that is, its information content) is defined in information theory in relation to the probability that a given message is received from the set of all possible messages: the less probable the message, the more information it carries. On

the basis of the elements of S^n it is now possible to define the empirical measure of entropy introduced by C. E. Shannon in his classic paper *A mathematical theory of communication* as

$$H(S^n) = \sum_{i=1}^{n} s_i \log_2 \frac{1}{s_i}. \tag{3}$$

It is worth noting that value of $H(S^n)$ depends only on characteristics of the structure analyzed, that is, its elements s_i. Przybyszewski, Wędrowska (2005) and Wędrowska (2009) provide proof that $H(S^n)$ fulfills the axiomatic definition of entropy and describe its properties. One of those properties states that $H(S^n)$ reaches its maximum value of $H_{max} = \log_2 n$ if all structure elements s_i are equal (that is, $s_1 = s_2 = \ldots = s_n$). As $H(S^n)$ approaches is maximum value, differences between structure elements decrease, and for $H(S^n) = H_{max}$, distribution of structure elements becomes uniform. Also, $H(S^n) = H_{min} = 0$ if one of the elements s_i (i = 1, 2, …, n) is equal to 1, and all the remaining structure elements are equal to 0 (that is, distribution is concentrated in one element of structure only). Value of $H(S^n)$ can be therefore interpreted as measure of concentration of elements s_i of structure S^n, and can be used in empirical setting to evaluate information content of a structure. When several structures ordered in time are available, it is also possible to analyze their dynamics. Empirical values and dynamics of entropy measure $H(S^n)$ for expectations and realizations expressed in business tendency surveys are presented in section 4.

In practice, however, not only the degree of uncertainty associated with *a priori* and *a posteriori* structures may be economically interesting but also extent of changes detected between assumed (*a priori*) and observed (*a posteriori*) structures. In order to analyze the size of change between *a priori* structure S_p^n and *a posteriori* structure S_q^n, a measure of expected amount of information (information content) is calculated:

$$I\left(S_q^n : S_p^n\right) = \sum_{i=1}^{n} q_i \log \frac{q_i}{p_i}. \tag{4}$$

One of the properties of measure $I(S_q^n : S_p^n)$ listed by Wędrowska (2009) states that it takes its minimum value of zero if both structures are identical (that is, $S_p^n = S_q^n$), and increases with the size of differences between the structures to infinity. $I(S_q^n : S_p^n)$ can be interpreted as degree of change between assumed (*a priori*) and observed (*a posteriori*) structures, and therefore serve as measure of dissimilarity of structures: the larger it is, the less similar the structures are.

In empirical setting, it is more convenient to apply a standardized coefficient defined on interval [0, 1] to facilitate interpretations and comparisons. Chomątowski and Sokołowski (1978) introduce a similarity measure to classify data into comparable phases, and employ it to define clusters of industrial production in Poland. They also provide a related dissimilarity measure that can be used to evaluate extent of change from *a priori* to *a posteriori* structure:

$$P\left(S_q^n : S_p^n\right) = 1 - \sum_{i=1}^{n} \min(q_i, p_i)\,. \tag{5}$$

From the properties of structure defined by (1) and (2) it follows that $P(S_q^n : S_p^n) \in$ [0, 1]. The lower limit is attained when analyzed structures are identical, that is, $S_p^n = S_q^n$. As dissimilarities between structures increase, value of $P(S_q^n : S_p^n)$ increases towards the upper limit of 1. Empirical values and dynamics of dissimilarity measure $P(S_q^n : S_p^n)$ employed to evaluate similarities between expectations and realizations expressed in business tendency surveys are described in section 5.

3. Data

Empirical part of this paper focuses on evaluation of information content and dissimilarity between expectations and observed realizations, declared by Polish industrial enterprises in business tendency surveys. Since 1986, qualitative business tendency surveys are conducted by the Research Institute for Economic Development (RIED) at the Warsaw School of Economics. Originally launched for manufacturing industry, currently they cover households, farming sector, exporters, construction industry, and banking sector as well. In the monthly survey addressed to industrial enterprises (see Appendix I), respondents are asked to evaluate both current situation (as compared to last month) and expectations for the next 3 – 4 months by assigning them to one of three categories: increase / improvement, no change, or decrease / decline. Aggregated survey results are regularly published in RIED bulletins (see RIED, 2010).

For empirical analysis, four survey questions have been selected, namely, those pertaining to changes in production, prices, employment and general business conditions. These variables have been analyzed previously, and they have precisely defined counterparts in official statistics necessary for purposes of quantitative analysis (see Tomczyk, 2005). *A priori* structure is defined as percentages of respondents who expect increase / no change

/ decline, and *a posteriori* structure as percentages of respondents who observe increase / no change / decline three and four months later. This definition fulfills conditions (1) and (2). All variables are analyzed for three ownership types: public, private and total. Since forecast horizon is not precisely defined, both alternatives (k = 3 and k = 4) are analyzed when calculating measure of dissimilarity $P(S_q^n : S_p^n)$.

Available data cover 161 observations from March 1997 to July 2010. However, since expectations have to be matched with observed realizations to calculate the measure of dissimilarity $P(S_q^n : S_p^n)$, length of time series is reduced either by three (for 3-month forecast horizon) or by four observations (for 4-month forecast horizon). For the purposes of clarity of presentation, all results are reported for the core time period of June 1997 to April 2010 (155 observations).

4. Empirical results: entropy

Table 1 presents summary statistics for entropy measure $H(S^n)$ given by formula (3), calculated for all four variables, separately for expectations and observed changes, across ownership sectors. Detailed results accompanied by graphs are presented in Appendix II.

Table 1. Summary statistics for entropy measures

	production					
	expectations			realizations		
	all	public	private	all	public	private
min	1,2650	1,1956	1,2851	1,3289	1,2638	1,2790
max	1,5515	1,5773	1,5679	1,5702	1,5803	1,5751
avg	1,4680	1,4455	1,4741	1,5054	1,4913	1,5093
std dev	0,0530	0,0738	0,0583	0,0444	0,0604	0,0485
	prices					
	expectations			realizations		
	all	public	private	all	public	private
min	0,7713	0,6295	0,7566	0,7674	0,5938	0,8155
max	1,3140	1,3355	1,2962	1,2962	1,4447	1,2882
avg	0,9916	0,9755	0,9970	1,0301	1,0224	1,0306
std dev	0,1065	0,1331	0,1118	0,1042	0,1630	0,1035
	employment					
	expectations			realizations		
	all	public	private	all	public	private
min	0,9398	0,8669	0,8676	1,0486	0,8241	1,0404
max	1,3822	1,4246	1,4101	1,3940	1,4194	1,3901
avg	1,1884	1,1678	1,1925	1,2434	1,2065	1,2605
std dev	0,0751	0,0934	0,0895	0,0696	0,1063	0,0713
	general business conditions					
	expectations			realizations		
	all	public	private	all	public	private
min	0,8663	0,8703	0,8778	0,6238	0,7749	0,5354
max	1,4407	1,4902	1,4796	1,3857	1,4478	1,4308
avg	1,2921	1,2575	1,3151	1,1741	1,1334	1,2018
std dev	0,0827	0,1080	0,0885	0,1116	0,1138	0,1295

Source: own calculations on the basis of RIED data

To facilitate comparisons, Figures 1 – 4 present values of entropy measure $H(S^n)$ for expectations and realizations (for all firms only, to make graphs more legible) against the same scale.

Figure 1. Entropy of production (all firms)

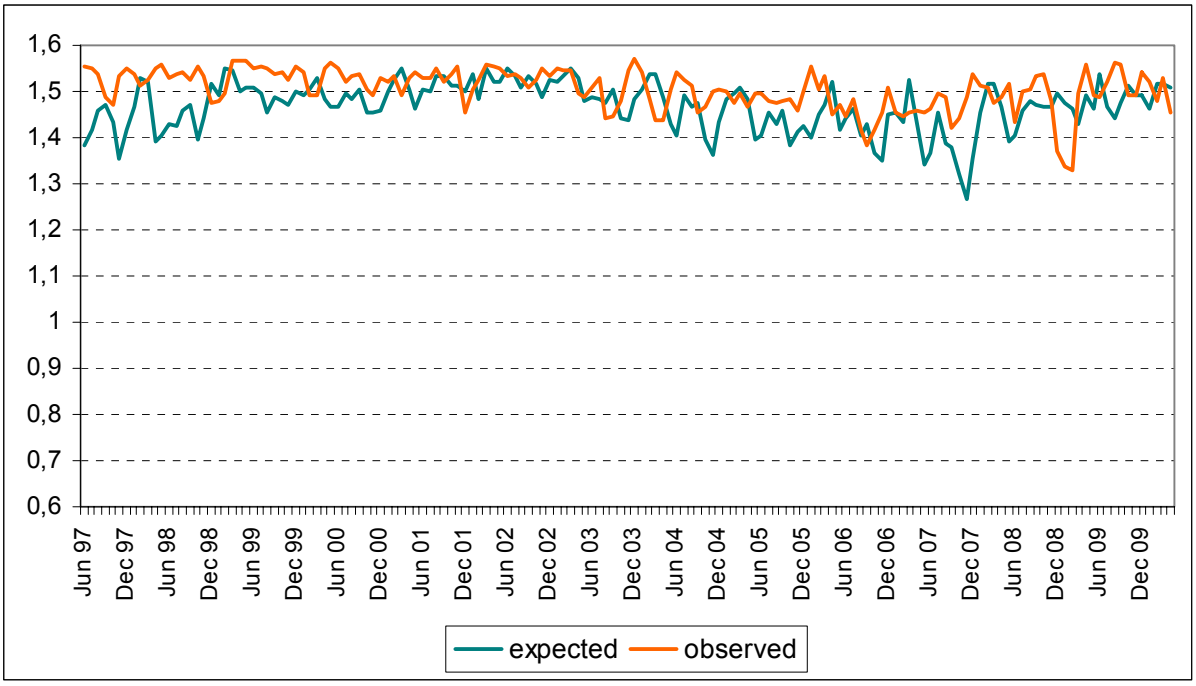


Figure 2. Entropy of prices (all firms)

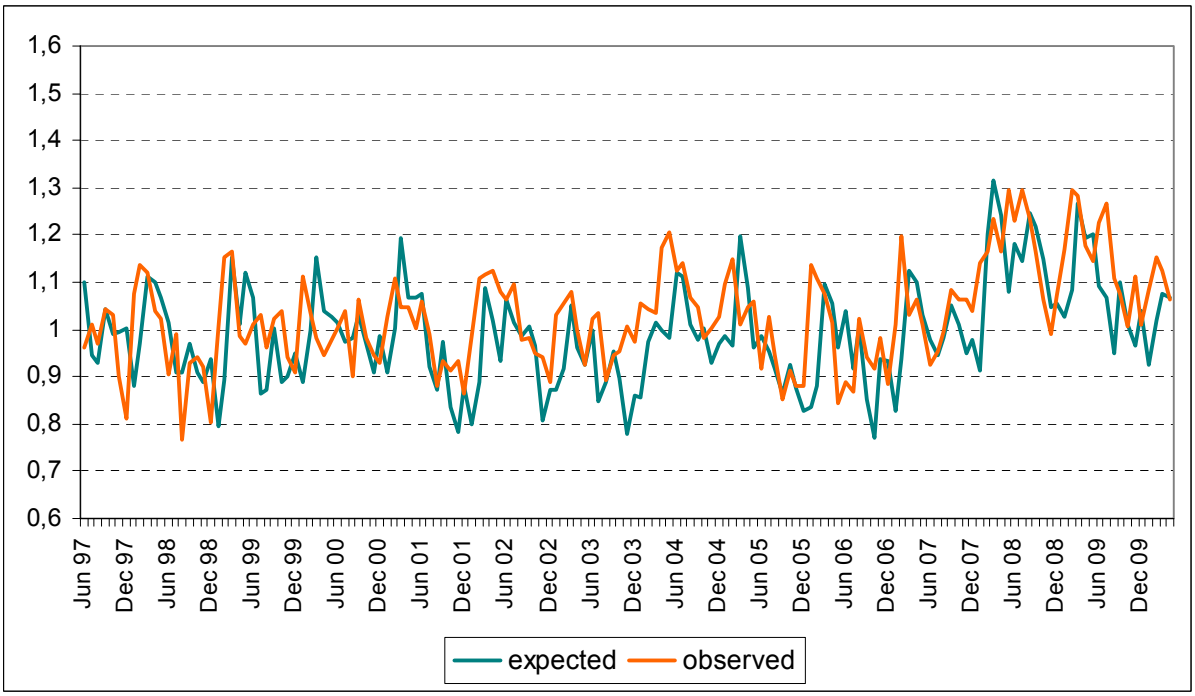


Figure 3. Entropy of employment (all firms)

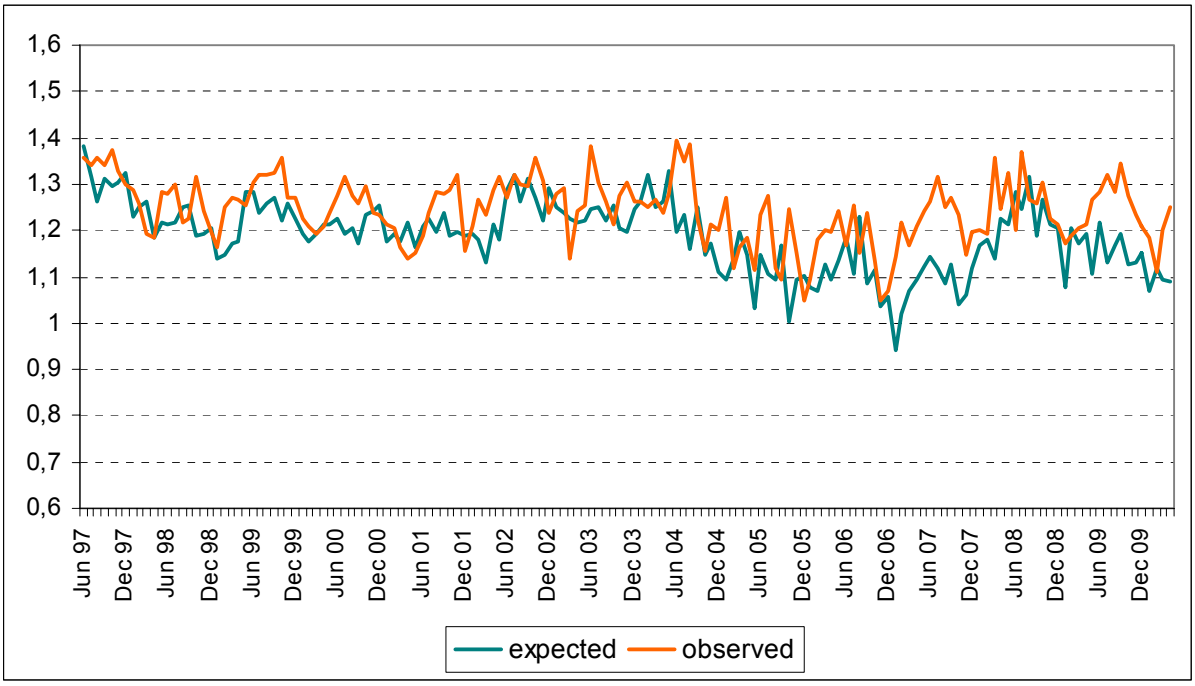
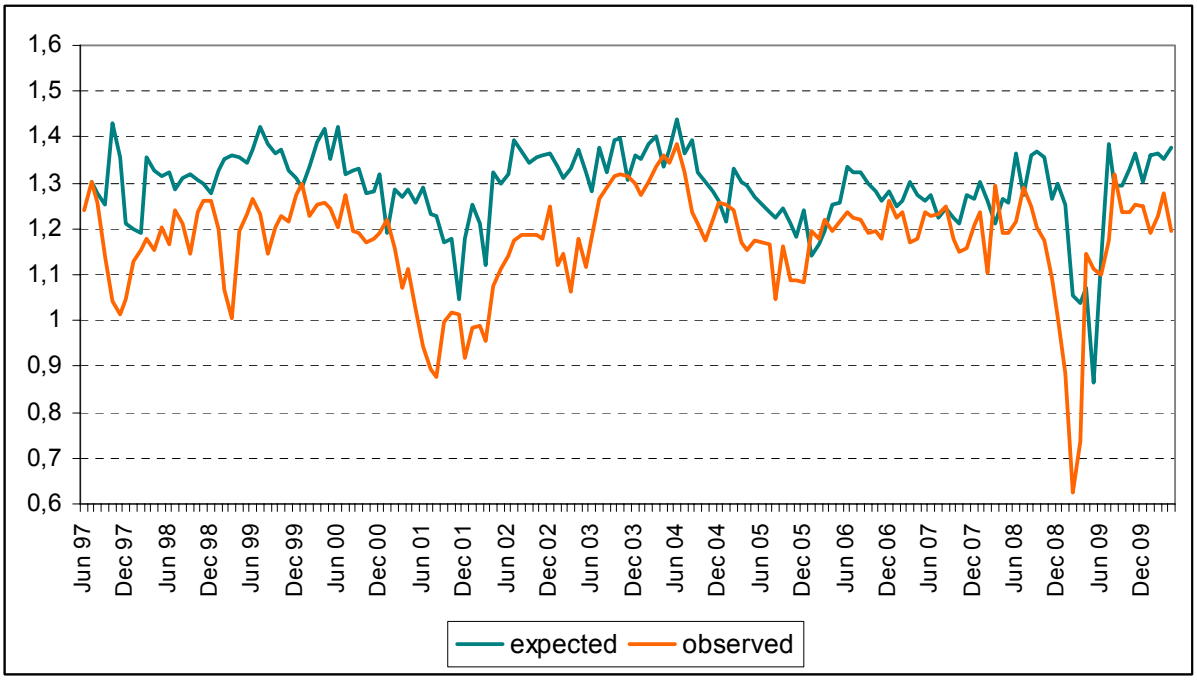


Figure 4. Entropy of general business conditions (all firms)



Source: own calculations on the basis of RIED data

High values obtained in case of production, both in comparison to other variables and in absolute terms, seem to be the most striking result. The maximum value of measure of entropy is $H_{max} = \log_2 n = \log_2 3 = 1{,}5850$; the closer empirical entropy of a structure to its maximum value, the more uniform the structure is, and therefore the less informative *a priori*

structure becomes in relation to *a posteriori* structure. Maximum values obtained for production (1,5515 for expectations and 1,5702 for realizations) are close to the upper limit, and average values (1,4680 for expectations and 1,5054 for realizations) are also very high in comparison to entropy of prices, employment and general business conditions. On the other hand, entropy is equal to zero if one of the elements of a structure is equal to 1, that is, there is no uncertainty associated with distribution of outcomes. Value of zero is not attained for any of the variables analyzed, but the lowest values are observed for prices and realizations of general business conditions.

For production and unemployment, behavior of expected and observed series is similar; in case of employment, expectations exhibit lower averages, across all ownership sectors, than realizations; in case of general business conditions, the opposite is true. Public enterprises exhibit lower average and higher variability of entropy (as measured by standard deviation; see Appendix II) than private enterprises, with the sole exception of standard deviation for observed general business conditions.

5. Empirical results: dissimilarity of structures

Figures 5 – 8 provide graphical summary of results obtained for differences between measures of dissimilarity of structures $P(S_q^n : S_p^n)$ calculated for 3-month horizon and 4-month horizon. Values calculated on the basis of formula (5) for all four variables, three ownership types and separately for 3-month forecast horizon (k = 3) and 4-month forecast horizon (k = 4) are presented in Appendix III. Table 2 presents summary statistics for differences between dissimilarity measures for k = 3 and k = 4.

Figure 5. Differences between dissimilarity measures for k = 3 and k = 4, production (all firms)

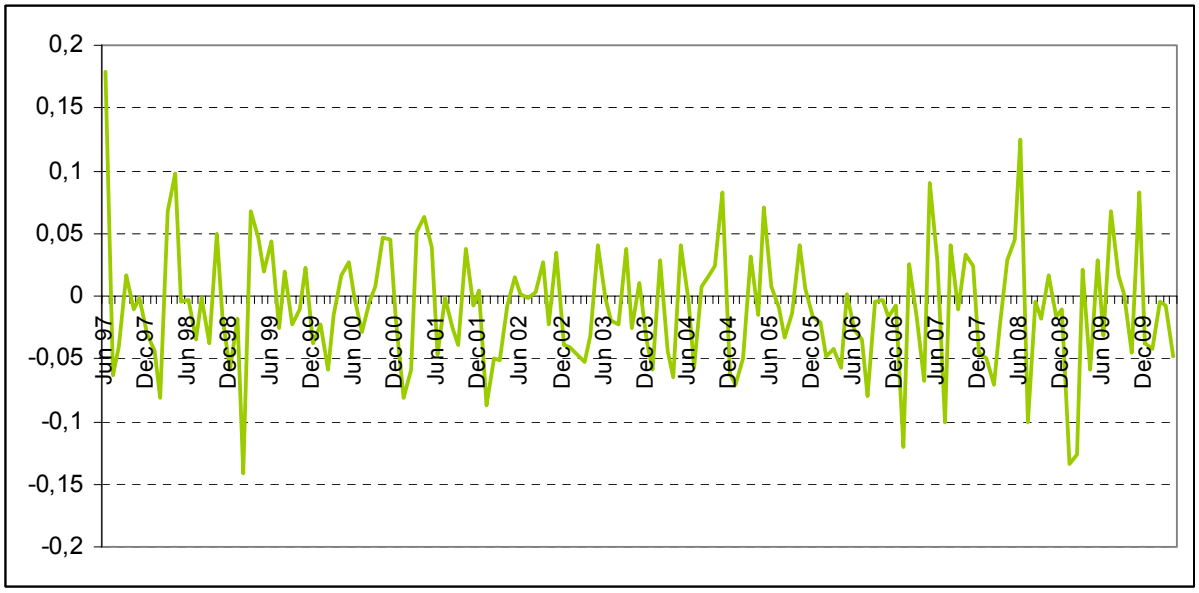


Figure 6. Differences between dissimilarity measures for k = 3 and k = 4, prices (all firms)

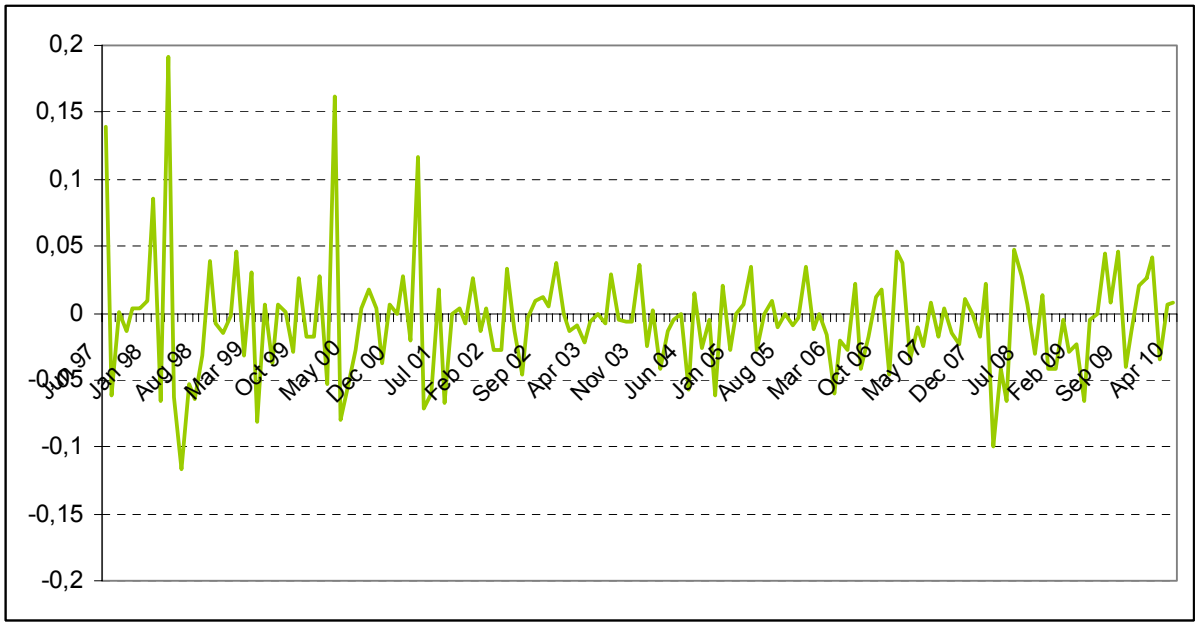


Figure 7. Differences between dissimilarity measures for k = 3 and k = 4, employment (all firms)

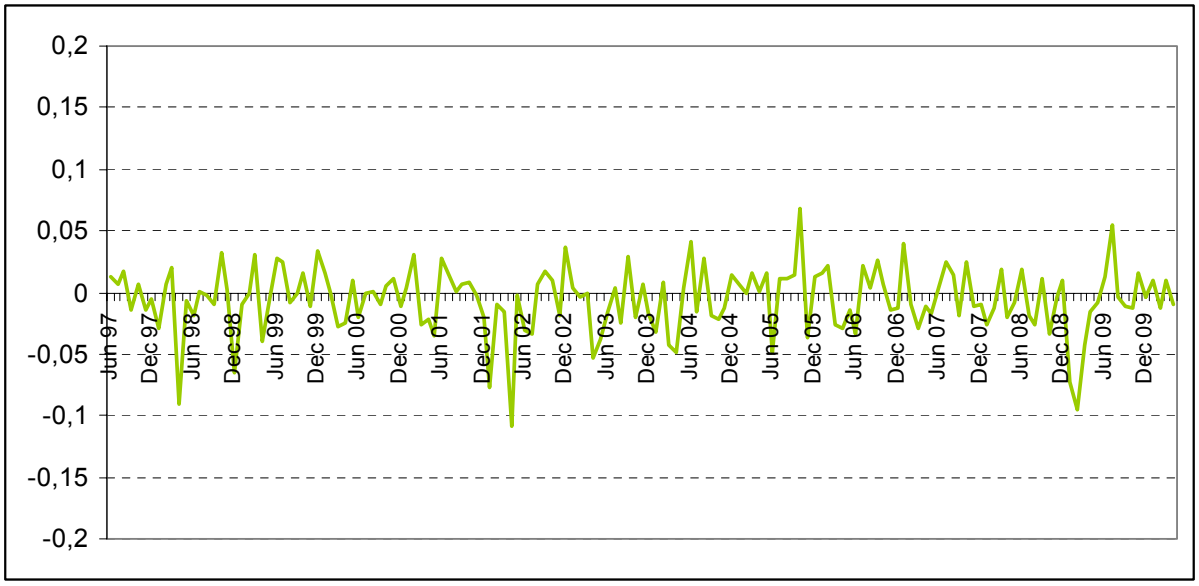
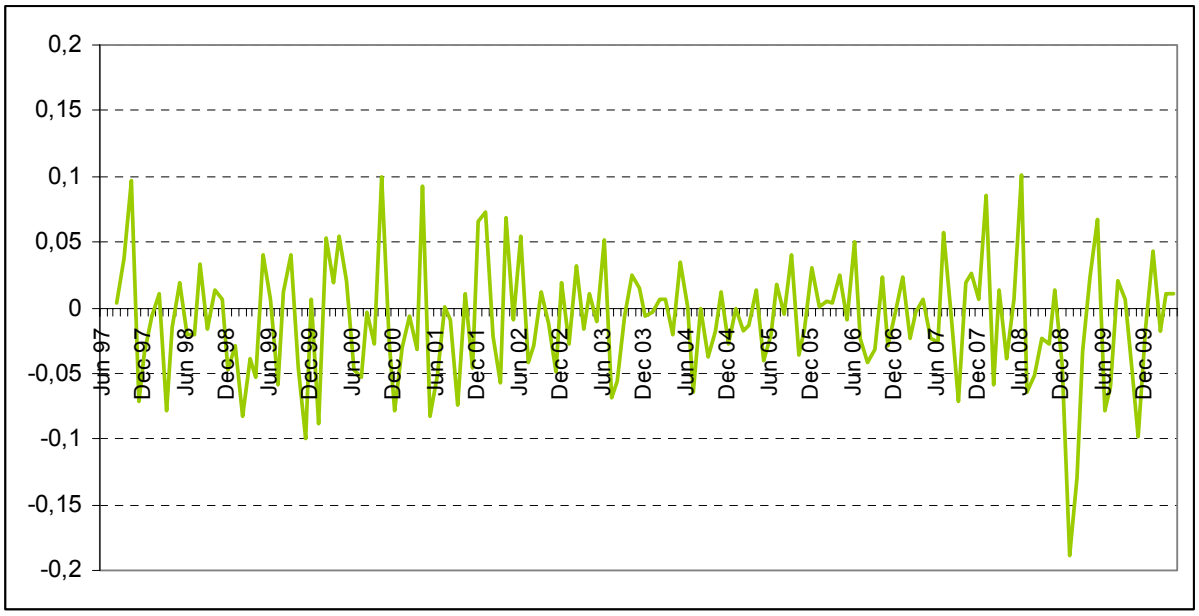


Figure 8. Differences between dissimilarity measures for k = 3 and k = 4, general business conditions (all firms)



Source: own calculations on the basis of RIED data

Table 2. Summary statistics for dissimilarity measures: difference between $k = 3$ and $k = 4$

	production	prices	employment	business
min	-0,1420	-0,1160	-0,1080	-0,1880
max	0,1790	0,1920	0,0680	0,1010
avg	-0,0095	-0,0056	-0,0055	-0,0095
std dev	0,0480	0,0412	0,0263	0,0446

Source: own calculations on the basis of RIED data

In Figures 5 – 8, negative numbers signify that value of $P(S_q^n : S_p^n)$ for $k = 3$ is smaller than for $k = 4$, that is, structures of realizations and expectations for $k = 3$ are more similar than structures of realizations and expectations for $k = 4$. This can be interpreted as expectations interpreted as 4-month being less congruent with later observed realization than expectations interpreted in 3-month horizon. Negative numbers also imply that $I(S_q^n : S_p^n)$ for $k = 3$ is smaller than for $k = 4$, that is, expected information content of change from *a priori* structure into *a posteriori* structure is smaller. Difference in structures is therefore bigger for $k = 4$ than for $k = 3$.

The graphs do not provide basis for determining which forecast horizon is supported by measures of dissimilarity of structure. Average values of dissimilarity statistics (see Table 2) are slightly negative for all variables which suggests that predictions made at the 3-month forecast horizon are more similar to the realizations that those made 4 months in advance. However, they are too small to constitute a proof, especially when compared to relatively high standard deviations. It is also worth noting that maximum values of dissimilarity measures obtained for production and prices are twice as high as employment and general business conditions. It follows that in production and prices there are (few) periods in which the 4-month forecast horizon is considerably more similar to realizations, although the average remains negative, suggesting that on average the 3-month forecast horizon is closer to the observed changes in analyzed variables.

6. Concluding comments

On the basis of empirical analysis of the business tendency survey data, the following conclusions have been reached on the basis of measures of entropy:

- in case of production, distribution of increase / no change / decrease fractions is relatively uniform, leading to high entropy and providing little information,
- entropy of prices is relatively low; since value of entropy allows to evaluate degree of concentration, in case of prices fractions of survey answers seems to be particularly centered on one of the three options provided in the questionnaire,
- entropy of general business conditions exhibits the highest variability which may be interpreted as volatile changes in information content of surveys from one month to another; in contrast, entropy of production is the least variable,
- generally, public enterprises exhibit lower entropy (as measured by average) and higher variability (as measured by standard deviation) than private enterprises; that is, for public enterprises concentration of answers to the survey questions is higher and also more variable.

To evaluate whether structures for 3-month or 4-month forecast horizons are more similar to observed realizations, measures of dissimilarity of structures were calculated. Unfortunately the results do not provide clear answer to this question. A slight tendency towards the 3-month forecast horizon is noted on the basis of negative (but very small in absolute terms) average values of dissimilarity measures across all four variables.

To summarize, results obtained on the basis of entropy and dissimilarity measures provide new insights into behavior of expectations and realizations expressed in business tendency surveys. As this is the first attempt to empirically address the question of information content of the RIED survey data, more work is clearly needed.

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Appendix I. Monthly RIED questionnaire in industry

		Observed within last month	Expected for next 3 – 4 months
01	Level of production (value or physical units)	up unchanged down	will increase will remain unchanged will decrease
02	Level of orders	up normal down	will increase will remain normal will decrease
03	Level of export orders	up normal down not applicable	will increase will remain normal will decrease not applicable
04	Stocks of finished goods	up unchanged down	will increase will remain unchanged will decrease
05	Prices of goods produced	up unchanged down	will increase will remain unchanged will decrease
06	Level of employment	up unchanged down	will increase will remain unchanged will decrease
07	Financial standing	improved unchanged deteriorated	will improve will remain unchanged will deteriorate
08	General situation of the economy regardless of situation in your sector and enterprise	improved unchanged deteriorated	will improve will remain unchanged will deteriorate

Source: the RIED database

Appendix II. Measures of entropy

Table A1. Entropy of production expectations (for all firms, public sector, and private sector)

Table A2. Entropy of observed production (for all firms, public sector, and private sector)

Table A1

	all	public	private
Jun 97	1,382	1,362	1,382
Jul 97	1,416	1,427	1,406
Aug 97	1,460	1,446	1,450
Sep 97	1,471	1,458	1,464
Oct 97	1,432	1,467	1,383
Nov 97	1,356	1,363	1,350
Dec 97	1,415	1,433	1,401
Jan 98	1,468	1,478	1,471
Feb 98	1,527	1,536	1,515
Mar 98	1,522	1,548	1,493
Apr 98	1,391	1,395	1,376
May 98	1,405	1,420	1,406
Jun 98	1,430	1,407	1,404
Jul 98	1,426	1,417	1,416
Aug 98	1,458	1,474	1,387
Sep 98	1,473	1,481	1,454
Oct 98	1,394	1,327	1,442
Nov 98	1,442	1,461	1,424
Dec 98	1,515	1,470	1,544
Jan 99	1,494	1,476	1,508
Feb 99	1,552	1,549	1,540
Mar 99	1,546	1,540	1,549
Apr 99	1,501	1,533	1,502
May 99	1,510	1,476	1,540
Jun 99	1,510	1,469	1,531
Jul 99	1,496	1,489	1,486
Aug 99	1,456	1,401	1,482
Sep 99	1,488	1,460	1,505
Oct 99	1,477	1,482	1,483
Nov 99	1,469	1,481	1,455
Dec 99	1,501	1,515	1,502
Jan 00	1,491	1,488	1,503
Feb 00	1,504	1,496	1,500
Mar 00	1,528	1,531	1,523
Apr 00	1,485	1,468	1,501
May 00	1,466	1,430	1,485

Table A2

	all	public	private
Jun 97	1,553	1,554	1,533
Jul 97	1,549	1,536	1,550
Aug 97	1,538	1,537	1,539
Sep 97	1,487	1,492	1,489
Oct 97	1,473	1,499	1,440
Nov 97	1,533	1,527	1,547
Dec 97	1,551	1,536	1,544
Jan 98	1,539	1,533	1,545
Feb 98	1,512	1,520	1,514
Mar 98	1,525	1,514	1,540
Apr 98	1,548	1,553	1,544
May 98	1,556	1,551	1,549
Jun 98	1,530	1,537	1,521
Jul 98	1,539	1,529	1,541
Aug 98	1,542	1,540	1,549
Sep 98	1,524	1,490	1,537
Oct 98	1,553	1,556	1,566
Nov 98	1,532	1,503	1,550
Dec 98	1,476	1,446	1,464
Jan 99	1,478	1,395	1,520
Feb 99	1,497	1,465	1,522
Mar 99	1,566	1,558	1,575
Apr 99	1,565	1,573	1,557
May 99	1,568	1,573	1,554
Jun 99	1,549	1,512	1,565
Jul 99	1,552	1,547	1,559
Aug 99	1,550	1,541	1,560
Sep 99	1,536	1,546	1,527
Oct 99	1,542	1,542	1,549
Nov 99	1,524	1,494	1,536
Dec 99	1,553	1,551	1,555
Jan 00	1,543	1,536	1,546
Feb 00	1,490	1,451	1,522
Mar 00	1,490	1,485	1,495
Apr 00	1,550	1,558	1,536
May 00	1,563	1,555	1,570

Jun 00	1,466	1,432	1,474
Jul 00	1,496	1,425	1,529
Aug 00	1,482	1,466	1,484
Sep 00	1,505	1,493	1,520
Oct 00	1,454	1,440	1,464
Nov 00	1,454	1,459	1,463
Dec 00	1,460	1,413	1,512
Jan 01	1,500	1,478	1,515
Feb 01	1,525	1,519	1,517
Mar 01	1,551	1,551	1,558
Apr 01	1,504	1,485	1,530
May 01	1,465	1,386	1,524
Jun 01	1,506	1,498	1,484
Jul 01	1,499	1,440	1,547
Aug 01	1,534	1,491	1,566
Sep 01	1,535	1,530	1,540
Oct 01	1,511	1,493	1,539
Nov 01	1,513	1,535	1,481
Dec 01	1,501	1,459	1,543
Jan 02	1,536	1,522	1,521
Feb 02	1,482	1,497	1,443
Mar 02	1,548	1,530	1,555
Apr 02	1,523	1,508	1,553
May 02	1,519	1,468	1,565
Jun 02	1,548	1,490	1,568
Jul 02	1,535	1,500	1,550
Aug 02	1,508	1,516	1,488
Sep 02	1,533	1,499	1,559
Oct 02	1,516	1,485	1,537
Nov 02	1,488	1,493	1,483
Dec 02	1,524	1,504	1,525
Jan 03	1,520	1,544	1,491
Feb 03	1,534	1,530	1,511
Mar 03	1,549	1,532	1,554
Apr 03	1,530	1,497	1,545
May 03	1,478	1,400	1,517
Jun 03	1,486	1,385	1,519
Jul 03	1,482	1,375	1,508
Aug 03	1,473	1,401	1,503
Sep 03	1,506	1,447	1,540
Oct 03	1,443	1,450	1,440
Nov 03	1,437	1,429	1,417
Dec 03	1,483	1,434	1,516
Jan 04	1,506	1,471	1,527

Jun 00	1,550	1,542	1,557
Jul 00	1,519	1,490	1,544
Aug 00	1,534	1,547	1,513
Sep 00	1,538	1,535	1,551
Oct 00	1,504	1,516	1,504
Nov 00	1,491	1,494	1,517
Dec 00	1,531	1,529	1,535
Jan 01	1,522	1,478	1,553
Feb 01	1,532	1,498	1,544
Mar 01	1,493	1,484	1,506
Apr 01	1,530	1,512	1,544
May 01	1,540	1,550	1,543
Jun 01	1,529	1,508	1,550
Jul 01	1,531	1,529	1,531
Aug 01	1,551	1,545	1,545
Sep 01	1,520	1,535	1,502
Oct 01	1,538	1,549	1,510
Nov 01	1,554	1,548	1,559
Dec 01	1,455	1,484	1,388
Jan 02	1,503	1,438	1,538
Feb 02	1,523	1,522	1,523
Mar 02	1,556	1,547	1,556
Apr 02	1,556	1,525	1,565
May 02	1,550	1,529	1,556
Jun 02	1,532	1,505	1,557
Jul 02	1,537	1,556	1,522
Aug 02	1,528	1,493	1,554
Sep 02	1,507	1,482	1,525
Oct 02	1,527	1,514	1,537
Nov 02	1,549	1,575	1,506
Dec 02	1,534	1,548	1,508
Jan 03	1,550	1,534	1,545
Feb 03	1,548	1,517	1,561
Mar 03	1,547	1,515	1,552
Apr 03	1,497	1,476	1,498
May 03	1,488	1,453	1,501
Jun 03	1,510	1,469	1,540
Jul 03	1,529	1,541	1,533
Aug 03	1,442	1,334	1,505
Sep 03	1,447	1,421	1,471
Oct 03	1,479	1,439	1,505
Nov 03	1,544	1,476	1,574
Dec 03	1,570	1,554	1,564
Jan 04	1,540	1,522	1,543

Feb 04	1,540	1,496	1,556	Feb 04	1,484	1,361	1,549
Mar 04	1,538	1,489	1,557	Mar 04	1,436	1,329	1,467
Apr 04	1,488	1,358	1,537	Apr 04	1,439	1,416	1,411
May 04	1,427	1,312	1,491	May 04	1,505	1,477	1,512
Jun 04	1,404	1,310	1,416	Jun 04	1,543	1,557	1,523
Jul 04	1,490	1,504	1,475	Jul 04	1,526	1,514	1,541
Aug 04	1,468	1,459	1,452	Aug 04	1,513	1,545	1,495
Sep 04	1,476	1,514	1,439	Sep 04	1,455	1,448	1,460
Oct 04	1,394	1,416	1,380	Oct 04	1,466	1,373	1,519
Nov 04	1,362	1,378	1,354	Nov 04	1,498	1,454	1,537
Dec 04	1,435	1,357	1,487	Dec 04	1,505	1,531	1,501
Jan 05	1,481	1,407	1,534	Jan 05	1,500	1,517	1,496
Feb 05	1,494	1,437	1,532	Feb 05	1,476	1,387	1,515
Mar 05	1,509	1,506	1,532	Mar 05	1,495	1,458	1,518
Apr 05	1,482	1,527	1,452	Apr 05	1,468	1,410	1,510
May 05	1,395	1,358	1,429	May 05	1,495	1,490	1,484
Jun 05	1,405	1,340	1,448	Jun 05	1,497	1,424	1,524
Jul 05	1,454	1,469	1,435	Jul 05	1,481	1,486	1,498
Aug 05	1,429	1,442	1,416	Aug 05	1,475	1,453	1,495
Sep 05	1,460	1,373	1,488	Sep 05	1,480	1,397	1,513
Oct 05	1,384	1,230	1,465	Oct 05	1,484	1,439	1,479
Nov 05	1,412	1,372	1,432	Nov 05	1,459	1,360	1,485
Dec 05	1,425	1,453	1,405	Dec 05	1,501	1,416	1,529
Jan 06	1,399	1,368	1,424	Jan 06	1,553	1,515	1,558
Feb 06	1,451	1,348	1,474	Feb 06	1,503	1,406	1,547
Mar 06	1,472	1,485	1,473	Mar 06	1,532	1,511	1,540
Apr 06	1,521	1,513	1,534	Apr 06	1,452	1,392	1,464
May 06	1,416	1,333	1,454	May 06	1,469	1,397	1,490
Jun 06	1,441	1,306	1,470	Jun 06	1,445	1,495	1,419
Jul 06	1,461	1,437	1,446	Jul 06	1,484	1,476	1,472
Aug 06	1,405	1,417	1,391	Aug 06	1,415	1,400	1,417
Sep 06	1,430	1,430	1,418	Sep 06	1,384	1,377	1,394
Oct 06	1,365	1,375	1,380	Oct 06	1,416	1,406	1,429
Nov 06	1,351	1,274	1,400	Nov 06	1,455	1,425	1,463
Dec 06	1,449	1,452	1,445	Dec 06	1,509	1,529	1,491
Jan 07	1,453	1,414	1,469	Jan 07	1,455	1,385	1,490
Feb 07	1,432	1,341	1,463	Feb 07	1,445	1,446	1,450
Mar 07	1,524	1,505	1,545	Mar 07	1,453	1,501	1,396
Apr 07	1,433	1,436	1,441	Apr 07	1,460	1,421	1,451
May 07	1,343	1,342	1,330	May 07	1,455	1,363	1,487
Jun 07	1,367	1,369	1,335	Jun 07	1,461	1,424	1,470
Jul 07	1,454	1,474	1,427	Jul 07	1,495	1,486	1,494
Aug 07	1,389	1,402	1,366	Aug 07	1,487	1,461	1,492
Sep 07	1,381	1,388	1,376	Sep 07	1,422	1,419	1,428

Oct 07	1,320	1,212	1,339
Nov 07	1,265	1,196	1,285
Dec 07	1,353	1,324	1,396
Jan 08	1,452	1,430	1,474
Feb 08	1,518	1,517	1,514
Mar 08	1,516	1,511	1,505
Apr 08	1,467	1,525	1,425
May 08	1,393	1,449	1,369
Jun 08	1,403	1,384	1,397
Jul 08	1,458	1,467	1,444
Aug 08	1,478	1,505	1,465
Sep 08	1,471	1,467	1,475
Oct 08	1,465	1,288	1,489
Nov 08	1,467	1,215	1,486
Dec 08	1,496	1,367	1,508
Jan 09	1,474	1,433	1,483
Feb 09	1,462	1,539	1,437
Mar 09	1,430	1,477	1,422
Apr 09	1,492	1,577	1,463
May 09	1,463	1,551	1,417
Jun 09	1,536	1,532	1,535
Jul 09	1,466	1,410	1,471
Aug 09	1,443	1,404	1,446
Sep 09	1,474	1,428	1,490
Oct 09	1,514	1,510	1,517
Nov 09	1,493	1,451	1,497
Dec 09	1,491	1,445	1,490
Jan 10	1,463	1,420	1,473
Feb 10	1,519	1,524	1,512
Mar 10	1,515	1,523	1,503
Apr 10	1,507	1,515	1,506

Oct 07	1,440	1,462	1,436
Nov 07	1,488	1,462	1,501
Dec 07	1,537	1,521	1,522
Jan 08	1,511	1,480	1,506
Feb 08	1,509	1,549	1,474
Mar 08	1,477	1,514	1,458
Apr 08	1,486	1,479	1,488
May 08	1,515	1,468	1,500
Jun 08	1,434	1,467	1,427
Jul 08	1,500	1,564	1,483
Aug 08	1,502	1,574	1,464
Sep 08	1,535	1,549	1,533
Oct 08	1,540	1,520	1,542
Nov 08	1,481	1,548	1,454
Dec 08	1,371	1,450	1,356
Jan 09	1,336	1,264	1,339
Feb 09	1,329	1,478	1,279
Mar 09	1,494	1,525	1,480
Apr 09	1,559	1,575	1,555
May 09	1,490	1,422	1,504
Jun 09	1,489	1,488	1,486
Jul 09	1,521	1,487	1,528
Aug 09	1,562	1,555	1,560
Sep 09	1,560	1,552	1,560
Oct 09	1,492	1,509	1,481
Nov 09	1,493	1,516	1,490
Dec 09	1,540	1,559	1,542
Jan 10	1,523	1,580	1,493
Feb 10	1,479	1,545	1,471
Mar 10	1,529	1,378	1,539
Apr 10	1,453	1,448	1,456

Table A3. Entropy of price expectations (for all firms, public sector, and private sector)

Table A4. Entropy of observed prices (for all firms, public sector, and private sector)

Table A3

	all	public	private
Jun 97	1,100	1,126	1,082
Jul 97	0,945	0,951	0,966
Aug 97	0,929	0,938	0,941
Sep 97	1,041	0,930	1,111
Oct 97	0,989	0,946	1,019
Nov 97	0,993	0,929	1,059
Dec 97	1,004	0,998	1,008
Jan 98	0,880	0,881	0,885
Feb 98	0,971	0,911	1,062
Mar 98	1,112	1,116	1,124
Apr 98	1,101	1,062	1,134
May 98	1,067	1,082	1,024
Jun 98	1,014	0,995	1,043
Jul 98	0,911	0,884	0,925
Aug 98	0,909	0,831	1,018
Sep 98	0,970	0,876	1,066
Oct 98	0,909	0,810	0,925
Nov 98	0,888	0,907	0,893
Dec 98	0,939	0,948	0,961
Jan 99	0,797	0,689	0,817
Feb 99	0,893	0,843	0,933
Mar 99	1,152	1,030	1,182
Apr 99	1,009	0,977	1,010
May 99	1,121	1,067	1,118
Jun 99	1,069	1,045	1,054
Jul 99	0,863	0,860	0,854
Aug 99	0,871	0,802	0,922
Sep 99	1,001	1,012	0,980
Oct 99	0,887	0,931	0,825
Nov 99	0,899	0,931	0,813
Dec 99	0,948	0,940	0,958
Jan 00	0,887	0,861	0,895
Feb 00	0,997	0,896	1,079
Mar 00	1,154	1,146	1,170
Apr 00	1,039	0,938	1,109
May 00	1,027	0,955	1,044
Jun 00	1,016	0,934	1,053
Jul 00	0,973	0,956	0,948

Table A4

	all	public	private
Jun 97	0,963	0,945	0,962
Jul 97	1,010	0,975	1,044
Aug 97	0,968	0,946	0,978
Sep 97	1,042	1,026	1,029
Oct 97	1,032	1,105	0,996
Nov 97	0,899	0,862	0,978
Dec 97	0,811	0,790	0,850
Jan 98	1,075	1,087	1,027
Feb 98	1,136	1,076	1,196
Mar 98	1,120	1,102	1,167
Apr 98	1,038	1,049	0,998
May 98	1,023	0,984	1,052
Jun 98	0,905	0,866	0,922
Jul 98	0,990	0,831	1,084
Aug 98	0,767	0,658	0,867
Sep 98	0,928	0,825	1,005
Oct 98	0,941	0,847	0,995
Nov 98	0,923	0,903	0,954
Dec 98	0,804	0,715	0,847
Jan 99	1,007	1,024	0,969
Feb 99	1,152	1,144	1,178
Mar 99	1,163	1,142	1,186
Apr 99	0,988	0,932	1,031
May 99	0,970	0,954	0,938
Jun 99	1,013	0,943	1,036
Jul 99	1,032	1,019	1,009
Aug 99	0,961	0,905	0,971
Sep 99	1,022	0,958	1,093
Oct 99	1,037	0,969	1,102
Nov 99	0,942	0,910	0,998
Dec 99	0,908	0,732	1,065
Jan 00	1,113	1,043	1,190
Feb 00	1,035	0,908	1,162
Mar 00	0,981	0,782	1,131
Apr 00	0,947	0,784	1,067
May 00	0,978	0,960	1,029
Jun 00	1,003	0,954	1,052
Jul 00	1,040	0,981	1,098

Aug 00	0,980	0,977	0,960
Sep 00	1,029	0,923	1,084
Oct 00	0,968	0,962	0,984
Nov 00	0,909	0,894	0,824
Dec 00	0,988	1,022	0,983
Jan 01	0,907	0,926	0,881
Feb 01	1,003	0,995	1,024
Mar 01	1,195	1,161	1,236
Apr 01	1,066	1,004	1,140
May 01	1,066	1,044	1,101
Jun 01	1,077	1,059	1,102
Jul 01	0,921	0,860	0,939
Aug 01	0,873	0,810	0,943
Sep 01	0,975	0,971	0,928
Oct 01	0,836	0,801	0,837
Nov 01	0,783	0,706	0,824
Dec 01	0,880	0,870	0,862
Jan 02	0,799	0,705	0,901
Feb 02	0,888	0,928	0,864
Mar 02	1,087	1,161	1,040
Apr 02	1,017	1,031	0,980
May 02	0,933	0,837	1,026
Jun 02	1,063	0,985	1,094
Jul 02	1,013	1,019	1,005
Aug 02	0,985	0,953	0,928
Sep 02	1,008	0,952	0,942
Oct 02	0,966	0,940	0,900
Nov 02	0,809	0,886	0,757
Dec 02	0,873	0,903	0,840
Jan 03	0,872	0,861	0,883
Feb 03	0,916	0,892	0,937
Mar 03	1,052	1,058	1,025
Apr 03	0,964	0,964	0,984
May 03	0,924	0,832	1,026
Jun 03	1,000	0,769	1,130
Jul 03	0,850	0,634	0,962
Aug 03	0,890	0,803	0,918
Sep 03	0,955	0,869	0,956
Oct 03	0,899	0,905	0,837
Nov 03	0,781	0,832	0,762
Dec 03	0,859	0,886	0,871
Jan 04	0,856	0,814	0,876
Feb 04	0,973	0,814	1,083
Mar 04	1,013	0,932	1,053

Aug 00	0,902	0,874	0,909
Sep 00	1,063	1,022	1,055
Oct 00	0,982	0,989	0,970
Nov 00	0,944	0,978	0,911
Dec 00	0,930	0,903	0,965
Jan 01	1,026	1,112	0,890
Feb 01	1,108	1,122	1,047
Mar 01	1,047	1,079	1,035
Apr 01	1,045	0,947	1,089
May 01	1,003	0,844	1,114
Jun 01	1,058	0,994	1,080
Jul 01	0,990	0,946	1,042
Aug 01	0,882	0,850	0,828
Sep 01	0,932	0,858	0,947
Oct 01	0,915	0,786	1,005
Nov 01	0,932	0,932	0,955
Dec 01	0,863	0,848	0,880
Jan 02	0,988	0,969	0,984
Feb 02	1,108	1,061	1,084
Mar 02	1,118	1,005	1,174
Apr 02	1,126	1,122	1,129
May 02	1,081	1,087	1,071
Jun 02	1,065	0,926	1,082
Jul 02	1,096	1,038	1,059
Aug 02	0,977	0,894	0,956
Sep 02	0,981	0,970	0,934
Oct 02	0,948	0,947	0,902
Nov 02	0,942	0,962	0,904
Dec 02	0,890	0,890	0,848
Jan 03	1,030	0,997	1,020
Feb 03	1,056	1,000	1,051
Mar 03	1,079	0,985	1,120
Apr 03	0,999	0,968	0,991
May 03	0,926	0,853	0,990
Jun 03	1,021	0,813	1,140
Jul 03	1,034	0,936	1,037
Aug 03	0,892	0,898	0,827
Sep 03	0,947	1,043	0,848
Oct 03	0,953	0,869	0,984
Nov 03	1,008	0,908	1,033
Dec 03	0,975	0,866	1,056
Jan 04	1,055	0,895	1,094
Feb 04	1,042	1,035	1,048
Mar 04	1,034	1,038	1,049

Apr 04	0,997	0,894	1,038	Apr 04	1,172	1,114	1,200
May 04	0,981	0,984	1,001	May 04	1,204	1,266	1,150
Jun 04	1,122	1,109	1,131	Jun 04	1,123	1,080	1,171
Jul 04	1,111	1,110	1,113	Jul 04	1,139	1,107	1,129
Aug 04	1,013	1,084	0,959	Aug 04	1,069	1,108	1,029
Sep 04	0,978	0,888	1,036	Sep 04	1,046	1,060	1,017
Oct 04	1,001	0,955	0,998	Oct 04	0,983	0,984	1,013
Nov 04	0,931	1,045	0,831	Nov 04	1,003	1,015	0,996
Dec 04	0,971	1,018	0,917	Dec 04	1,027	0,977	1,072
Jan 05	0,986	1,060	0,981	Jan 05	1,095	1,154	1,047
Feb 05	0,968	0,973	0,956	Feb 05	1,148	1,095	1,179
Mar 05	1,199	1,236	1,170	Mar 05	1,012	1,097	0,941
Apr 05	1,086	0,999	1,146	Apr 05	1,049	1,074	1,000
May 05	0,960	0,984	0,954	May 05	1,058	0,991	1,039
Jun 05	0,986	0,962	1,027	Jun 05	0,915	0,852	0,921
Jul 05	0,956	0,835	0,960	Jul 05	1,028	0,875	1,032
Aug 05	0,915	1,016	0,812	Aug 05	0,945	0,990	0,901
Sep 05	0,864	0,828	0,856	Sep 05	0,850	0,594	0,987
Oct 05	0,926	0,924	0,885	Oct 05	0,915	0,904	0,855
Nov 05	0,876	0,913	0,880	Nov 05	0,881	0,721	0,921
Dec 05	0,827	0,630	0,907	Dec 05	0,881	0,914	0,836
Jan 06	0,834	0,798	0,841	Jan 06	1,138	1,195	1,043
Feb 06	0,880	0,749	0,940	Feb 06	1,106	0,987	1,084
Mar 06	1,094	1,094	1,027	Mar 06	1,076	0,998	1,105
Apr 06	1,057	1,190	0,960	Apr 06	1,015	0,971	1,010
May 06	0,963	1,051	0,936	May 06	0,842	0,648	0,960
Jun 06	1,040	0,870	1,126	Jun 06	0,888	0,883	0,870
Jul 06	0,916	0,851	0,930	Jul 06	0,870	0,804	0,905
Aug 06	1,007	1,014	1,064	Aug 06	1,023	1,061	1,008
Sep 06	0,851	0,834	0,860	Sep 06	0,942	0,945	0,894
Oct 06	0,771		0,787	Oct 06	0,915	1,046	0,816
Nov 06	0,937	0,882	0,984	Nov 06	0,983	1,092	0,907
Dec 06	0,934	1,007	0,869	Dec 06	0,883	0,929	0,863
Jan 07	0,826	0,792	0,847	Jan 07	1,011	1,086	0,959
Feb 07	0,939	0,908	0,964	Feb 07	1,196	1,283	1,153
Mar 07	1,124	1,093	1,156	Mar 07	1,031	1,151	0,970
Apr 07	1,098	1,104	1,121	Apr 07	1,062	1,085	1,060
May 07	1,031	1,091	1,017	May 07	1,011	1,041	0,997
Jun 07	0,979	0,914	0,997	Jun 07	0,926	0,922	0,900
Jul 07	0,947	0,928	0,955	Jul 07	0,956	0,849	0,990
Aug 07	0,982	1,044	0,900	Aug 07	0,992	1,093	0,951
Sep 07	1,053	1,117	1,049	Sep 07	1,084	1,123	1,095
Oct 07	1,009	1,062	0,998	Oct 07	1,065	1,004	1,088
Nov 07	0,950	0,944	0,957	Nov 07	1,065	1,020	1,082

Dec 07	0,977	0,865	1,030
Jan 08	0,912	0,865	0,905
Feb 08	1,200	1,204	1,170
Mar 08	1,314	1,336	1,296
Apr 08	1,243	1,168	1,208
May 08	1,078	1,021	1,054
Jun 08	1,182	1,190	1,182
Jul 08	1,143	1,153	1,135
Aug 08	1,245	1,096	1,275
Sep 08	1,219	1,238	1,221
Oct 08	1,150	1,110	1,169
Nov 08	1,048	1,142	1,020
Dec 08	1,053	0,959	1,072
Jan 09	1,026	1,185	0,993
Feb 09	1,084	1,085	1,066
Mar 09	1,266	1,329	1,254
Apr 09	1,194	1,226	1,176
May 09	1,203	1,156	1,213
Jun 09	1,094	1,181	1,088
Jul 09	1,067	1,119	1,031
Aug 09	0,948	1,004	0,936
Sep 09	1,102	1,184	1,060
Oct 09	1,009	0,925	1,033
Nov 09	0,965	1,068	0,942
Dec 09	1,040	1,214	0,974
Jan 10	0,924	1,159	0,862
Feb 10	1,018	1,150	0,994
Mar 10	1,077	1,132	1,024
Apr 10	1,068	0,913	1,067

Dec 07	1,039	1,202	0,918
Jan 08	1,139	1,250	1,020
Feb 08	1,165	1,186	1,128
Mar 08	1,236	1,286	1,226
Apr 08	1,166	1,124	1,182
May 08	1,296	1,368	1,273
Jun 08	1,232	1,432	1,182
Jul 08	1,296	1,445	1,240
Aug 08	1,234	1,267	1,236
Sep 08	1,166	1,191	1,165
Oct 08	1,065	1,194	1,040
Nov 08	0,991	1,128	0,961
Dec 08	1,072	1,371	0,973
Jan 09	1,170	1,241	1,131
Feb 09	1,294	1,331	1,288
Mar 09	1,281	1,319	1,272
Apr 09	1,176	1,358	1,113
May 09	1,145	1,252	1,108
Jun 09	1,227	1,256	1,214
Jul 09	1,268	1,388	1,206
Aug 09	1,110	1,087	1,100
Sep 09	1,078	1,315	1,007
Oct 09	1,005	1,229	0,957
Nov 09	1,110	1,184	1,081
Dec 09	1,009	1,302	0,920
Jan 10	1,085	1,150	1,036
Feb 10	1,153	1,306	1,111
Mar 10	1,125	1,261	1,077
Apr 10	1,062	1,174	1,055

Table A5. Entropy of employment expectations (for all firms, public sector, and private sector)

Table A6. Entropy of observed employment (for all firms, public sector, and private sector)

Table A5

	all	public	private
Jun 97	1,382	1,331	1,410
Jul 97	1,314	1,232	1,379
Aug 97	1,261	1,171	1,346
Sep 97	1,311	1,289	1,340
Oct 97	1,295	1,251	1,356
Nov 97	1,305	1,283	1,333
Dec 97	1,324	1,319	1,354
Jan 98	1,231	1,190	1,249
Feb 98	1,251	1,229	1,264
Mar 98	1,263	1,282	1,258
Apr 98	1,183	1,215	1,122
May 98	1,217	1,163	1,265
Jun 98	1,215	1,186	1,245
Jul 98	1,215	1,146	1,232
Aug 98	1,250	1,125	1,343
Sep 98	1,255	1,273	1,241
Oct 98	1,187	1,144	1,203
Nov 98	1,194	1,172	1,172
Dec 98	1,205	1,201	1,199
Jan 99	1,140	1,123	1,155
Feb 99	1,147	1,148	1,157
Mar 99	1,172	1,145	1,197
Apr 99	1,175	1,145	1,201
May 99	1,283	1,188	1,345
Jun 99	1,282	1,189	1,347
Jul 99	1,236	1,161	1,286
Aug 99	1,259	1,173	1,295
Sep 99	1,270	1,155	1,323
Oct 99	1,220	1,164	1,244
Nov 99	1,260	1,219	1,281
Dec 99	1,226	1,189	1,214
Jan 00	1,191	1,163	1,182
Feb 00	1,176	1,102	1,215
Mar 00	1,193	1,190	1,178
Apr 00	1,213	1,144	1,254
May 00	1,212	1,187	1,223
Jun 00	1,227	1,164	1,268

Table A6

	all	public	private
Jun 97	1,359	1,337	1,380
Jul 97	1,341	1,308	1,381
Aug 97	1,356	1,340	1,372
Sep 97	1,339	1,331	1,345
Oct 97	1,373	1,362	1,387
Nov 97	1,327	1,313	1,341
Dec 97	1,299	1,272	1,349
Jan 98	1,287	1,251	1,313
Feb 98	1,258	1,237	1,247
Mar 98	1,191	1,200	1,188
Apr 98	1,185	1,182	1,173
May 98	1,283	1,298	1,249
Jun 98	1,280	1,247	1,292
Jul 98	1,301	1,201	1,380
Aug 98	1,219	1,197	1,216
Sep 98	1,227	1,197	1,252
Oct 98	1,315	1,263	1,345
Nov 98	1,242	1,280	1,232
Dec 98	1,198	1,245	1,166
Jan 99	1,164	1,102	1,172
Feb 99	1,252	1,196	1,315
Mar 99	1,271	1,218	1,319
Apr 99	1,265	1,273	1,273
May 99	1,254	1,202	1,291
Jun 99	1,302	1,243	1,346
Jul 99	1,321	1,263	1,343
Aug 99	1,319	1,275	1,355
Sep 99	1,325	1,285	1,343
Oct 99	1,357	1,306	1,389
Nov 99	1,273	1,243	1,300
Dec 99	1,269	1,246	1,240
Jan 00	1,225	1,180	1,281
Feb 00	1,207	1,195	1,214
Mar 00	1,192	1,164	1,185
Apr 00	1,210	1,233	1,165
May 00	1,240	1,252	1,223
Jun 00	1,275	1,232	1,297

Jul 00	1,191	1,173	1,155
Aug 00	1,206	1,152	1,222
Sep 00	1,172	1,148	1,162
Oct 00	1,232	1,187	1,248
Nov 00	1,242	1,232	1,228
Dec 00	1,255	1,287	1,202
Jan 01	1,176	1,117	1,224
Feb 01	1,194	1,193	1,181
Mar 01	1,177	1,152	1,201
Apr 01	1,218	1,226	1,173
May 01	1,164	1,136	1,188
Jun 01	1,208	1,226	1,194
Jul 01	1,226	1,209	1,257
Aug 01	1,198	1,163	1,254
Sep 01	1,238	1,189	1,284
Oct 01	1,190	1,199	1,172
Nov 01	1,196	1,239	1,153
Dec 01	1,187	1,167	1,216
Jan 02	1,194	1,163	1,205
Feb 02	1,182	1,121	1,216
Mar 02	1,132	1,071	1,180
Apr 02	1,214	1,201	1,214
May 02	1,179	1,191	1,147
Jun 02	1,287	1,193	1,322
Jul 02	1,321	1,184	1,386
Aug 02	1,263	1,146	1,296
Sep 02	1,310	1,211	1,359
Oct 02	1,270	1,271	1,259
Nov 02	1,222	1,180	1,186
Dec 02	1,291	1,247	1,317
Jan 03	1,249	1,202	1,213
Feb 03	1,237	1,130	1,244
Mar 03	1,224	1,177	1,196
Apr 03	1,218	1,194	1,221
May 03	1,221	1,222	1,220
Jun 03	1,244	1,237	1,244
Jul 03	1,252	1,273	1,231
Aug 03	1,220	1,182	1,247
Sep 03	1,256	1,295	1,175
Oct 03	1,205	1,232	1,124
Nov 03	1,195	1,236	1,166
Dec 03	1,245	1,292	1,211
Jan 04	1,262	1,321	1,221
Feb 04	1,319	1,318	1,309

Jul 00	1,315	1,231	1,353
Aug 00	1,275	1,261	1,253
Sep 00	1,259	1,243	1,285
Oct 00	1,296	1,321	1,254
Nov 00	1,237	1,230	1,258
Dec 00	1,235	1,230	1,236
Jan 01	1,212	1,223	1,217
Feb 01	1,204	1,177	1,237
Mar 01	1,163	1,123	1,223
Apr 01	1,138	1,167	1,140
May 01	1,153	1,143	1,191
Jun 01	1,189	1,154	1,252
Jul 01	1,237	1,213	1,232
Aug 01	1,283	1,274	1,310
Sep 01	1,278	1,274	1,281
Oct 01	1,289	1,260	1,318
Nov 01	1,322	1,334	1,312
Dec 01	1,156	1,060	1,224
Jan 02	1,210	1,159	1,241
Feb 02	1,266	1,188	1,312
Mar 02	1,236	1,114	1,301
Apr 02	1,288	1,210	1,330
May 02	1,318	1,277	1,341
Jun 02	1,270	1,174	1,330
Jul 02	1,322	1,206	1,390
Aug 02	1,301	1,223	1,308
Sep 02	1,295	1,181	1,359
Oct 02	1,357	1,330	1,366
Nov 02	1,308	1,314	1,282
Dec 02	1,239	1,169	1,233
Jan 03	1,279	1,268	1,285
Feb 03	1,290	1,336	1,255
Mar 03	1,140	1,111	1,182
Apr 03	1,243	1,232	1,292
May 03	1,254	1,216	1,296
Jun 03	1,382	1,372	1,387
Jul 03	1,305	1,320	1,302
Aug 03	1,263	1,221	1,280
Sep 03	1,213	1,175	1,258
Oct 03	1,274	1,357	1,208
Nov 03	1,303	1,232	1,322
Dec 03	1,263	1,247	1,277
Jan 04	1,264	1,183	1,324
Feb 04	1,249	1,207	1,292

Mar 04	1,251	1,328	1,221	Mar 04	1,265	1,312	1,218
Apr 04	1,262	1,275	1,246	Apr 04	1,239	1,207	1,267
May 04	1,327	1,425	1,264	May 04	1,280	1,297	1,250
Jun 04	1,199	1,229	1,123	Jun 04	1,394	1,408	1,371
Jul 04	1,236	1,310	1,182	Jul 04	1,348	1,286	1,376
Aug 04	1,160	1,059	1,141	Aug 04	1,387	1,331	1,387
Sep 04	1,250	1,118	1,292	Sep 04	1,226	1,292	1,219
Oct 04	1,149	1,201	1,126	Oct 04	1,154	1,060	1,236
Nov 04	1,173	1,211	1,119	Nov 04	1,212	1,164	1,251
Dec 04	1,110	1,153	1,102	Dec 04	1,199	1,155	1,246
Jan 05	1,094	1,043	1,153	Jan 05	1,272	1,301	1,246
Feb 05	1,139	1,080	1,203	Feb 05	1,119	1,046	1,208
Mar 05	1,195	1,151	1,239	Mar 05	1,165	1,106	1,171
Apr 05	1,146	1,168	1,118	Apr 05	1,183	1,180	1,185
May 05	1,033	1,031	1,059	May 05	1,114	1,005	1,157
Jun 05	1,149	1,008	1,238	Jun 05	1,233	1,141	1,285
Jul 05	1,104	1,109	1,106	Jul 05	1,276	1,225	1,300
Aug 05	1,092	0,993	1,122	Aug 05	1,117	1,147	1,118
Sep 05	1,166	1,051	1,226	Sep 05	1,094	1,084	1,080
Oct 05	1,002	0,940	1,045	Oct 05	1,246	1,178	1,269
Nov 05	1,092	1,031	1,162	Nov 05	1,150	1,087	1,231
Dec 05	1,101	1,109	1,091	Dec 05	1,049	0,925	1,151
Jan 06	1,079	1,129	1,052	Jan 06	1,093	0,901	1,211
Feb 06	1,068	1,132	1,047	Feb 06	1,182	1,022	1,243
Mar 06	1,127	1,198	1,097	Mar 06	1,200	0,989	1,257
Apr 06	1,095	1,034	1,112	Apr 06	1,199	1,041	1,288
May 06	1,135	1,130	1,127	May 06	1,241	1,145	1,272
Jun 06	1,183	1,118	1,205	Jun 06	1,170	0,824	1,290
Jul 06	1,105	1,028	1,155	Jul 06	1,254	1,093	1,324
Aug 06	1,228	1,080	1,295	Aug 06	1,152	1,135	1,155
Sep 06	1,086	1,012	1,098	Sep 06	1,240	1,137	1,241
Oct 06	1,113	1,015	1,142	Oct 06	1,136	1,055	1,178
Nov 06	1,038	0,966	1,054	Nov 06	1,050	0,882	1,107
Dec 06	1,057	1,021	1,048	Dec 06	1,070	0,925	1,122
Jan 07	0,940	0,996	0,868	Jan 07	1,142	0,971	1,199
Feb 07	1,019	0,867	1,052	Feb 07	1,219	1,151	1,236
Mar 07	1,070	1,002	1,116	Mar 07	1,170	1,218	1,138
Apr 07	1,096	1,160	1,060	Apr 07	1,209	1,115	1,237
May 07	1,124	1,074	1,124	May 07	1,241	1,284	1,217
Jun 07	1,143	1,223	1,052	Jun 07	1,263	1,245	1,260
Jul 07	1,120	1,154	1,059	Jul 07	1,315	1,254	1,356
Aug 07	1,085	1,223	0,991	Aug 07	1,251	1,288	1,220
Sep 07	1,129	1,111	1,125	Sep 07	1,273	1,272	1,281
Oct 07	1,040	0,896	1,071	Oct 07	1,233	1,258	1,198

Nov 07	1,060	1,230	0,949
Dec 07	1,119	1,140	1,112
Jan 08	1,169	1,071	1,208
Feb 08	1,181	1,094	1,196
Mar 08	1,138	1,068	1,162
Apr 08	1,227	1,343	1,069
May 08	1,215	1,310	1,166
Jun 08	1,282	1,041	1,305
Jul 08	1,247	1,304	1,230
Aug 08	1,317	1,291	1,320
Sep 08	1,189	1,191	1,198
Oct 08	1,268	1,238	1,283
Nov 08	1,213	1,229	1,207
Dec 08	1,206	1,299	1,185
Jan 09	1,079	1,065	1,081
Feb 09	1,205	1,161	1,215
Mar 09	1,172	1,296	1,147
Apr 09	1,191	1,285	1,170
May 09	1,107	1,072	1,117
Jun 09	1,218	1,121	1,236
Jul 09	1,131	1,144	1,132
Aug 09	1,170	1,172	1,177
Sep 09	1,193	1,277	1,182
Oct 09	1,128	1,238	1,108
Nov 09	1,132	1,086	1,152
Dec 09	1,150	1,077	1,145
Jan 10	1,069		1,074
Feb 10	1,119	1,207	1,102
Mar 10	1,094		1,102
Apr 10	1,088	0,999	1,095

Nov 07	1,147	1,254	1,040
Dec 07	1,195	1,083	1,234
Jan 08	1,199	1,241	1,136
Feb 08	1,192	1,215	1,181
Mar 08	1,359	1,208	1,381
Apr 08	1,247	1,353	1,210
May 08	1,326	1,325	1,335
Jun 08	1,200	1,145	1,216
Jul 08	1,368	1,419	1,367
Aug 08	1,266	1,312	1,262
Sep 08	1,257	1,324	1,245
Oct 08	1,302	1,318	1,283
Nov 08	1,227	1,238	1,225
Dec 08	1,215	1,207	1,220
Jan 09	1,172	1,170	1,173
Feb 09	1,187	0,993	1,210
Mar 09	1,206	1,293	1,189
Apr 09	1,213	1,281	1,200
May 09	1,269	1,215	1,281
Jun 09	1,281	1,336	1,267
Jul 09	1,320	1,229	1,326
Aug 09	1,284	1,197	1,311
Sep 09	1,345	1,321	1,354
Oct 09	1,275	1,322	1,256
Nov 09	1,232	1,089	1,239
Dec 09	1,210	1,291	1,197
Jan 10	1,183		1,219
Feb 10	1,109	1,111	1,101
Mar 10	1,203	1,039	1,233
Apr 10	1,251	1,038	1,266

Table A7. Entropy of general business conditions expectations (for all firms, public sector, and private sector)

Table A8. Entropy of observed business conditions (for all firms, public sector, and private sector)

Table A7

	all	public	private
Jun 97	N/A	N/A	N/A
Jul 97	1,302	1,331	1,293
Aug 97	1,277	1,297	1,276
Sep 97	1,253	1,243	1,317
Oct 97	1,429	1,398	1,443
Nov 97	1,355	1,360	1,375
Dec 97	1,212	1,204	1,255
Jan 98	1,201	1,155	1,278
Feb 98	1,192	1,191	1,216
Mar 98	1,358	1,363	1,355
Apr 98	1,327	1,320	1,332
May 98	1,314	1,319	1,331
Jun 98	1,324	1,347	1,300
Jul 98	1,286	1,214	1,319
Aug 98	1,312	1,201	1,415
Sep 98	1,321	1,308	1,308
Oct 98	1,305	1,303	1,322
Nov 98	1,297	1,292	1,313
Dec 98	1,279	1,258	1,288
Jan 99	1,327	1,360	1,317
Feb 99	1,351	1,351	1,340
Mar 99	1,360	1,310	1,372
Apr 99	1,355	1,371	1,330
May 99	1,345	1,302	1,381
Jun 99	1,371	1,325	1,405
Jul 99	1,420	1,428	1,415
Aug 99	1,386	1,391	1,412
Sep 99	1,362	1,375	1,376
Oct 99	1,372	1,322	1,420
Nov 99	1,329	1,212	1,415
Dec 99	1,309	1,279	1,354
Jan 00	1,289	1,265	1,321
Feb 00	1,334	1,332	1,349
Mar 00	1,390	1,379	1,393
Apr 00	1,420	1,360	1,458
May 00	1,353	1,335	1,373

Table A8

	all	public	private
Jun 97	1,242	1,190	1,306
Jul 97	1,302	1,278	1,318
Aug 97	1,256	1,259	1,248
Sep 97	1,142	1,153	1,157
Oct 97	1,042	0,963	1,108
Nov 97	1,014	1,006	1,046
Dec 97	1,046	0,946	1,138
Jan 98	1,129	1,185	1,097
Feb 98	1,155	1,081	1,223
Mar 98	1,178	1,146	1,191
Apr 98	1,156	1,058	1,197
May 98	1,202	1,124	1,283
Jun 98	1,166	1,108	1,180
Jul 98	1,241	1,231	1,263
Aug 98	1,210	1,198	1,227
Sep 98	1,146	1,068	1,232
Oct 98	1,238	1,143	1,323
Nov 98	1,263	1,194	1,292
Dec 98	1,259	1,264	1,217
Jan 99	1,198	1,185	1,194
Feb 99	1,068	0,996	1,111
Mar 99	1,003	0,980	1,023
Apr 99	1,196	1,165	1,207
May 99	1,232	1,243	1,219
Jun 99	1,265	1,245	1,289
Jul 99	1,230	1,113	1,332
Aug 99	1,144	1,118	1,179
Sep 99	1,202	1,187	1,235
Oct 99	1,227	1,211	1,244
Nov 99	1,215	1,105	1,304
Dec 99	1,275	1,168	1,359
Jan 00	1,298	1,256	1,353
Feb 00	1,227	1,152	1,285
Mar 00	1,254	1,231	1,270
Apr 00	1,258	1,187	1,323
May 00	1,243	1,211	1,264

Jun 00	1,422	1,374	1,480
Jul 00	1,320	1,255	1,379
Aug 00	1,328	1,238	1,407
Sep 00	1,333	1,316	1,350
Oct 00	1,279	1,175	1,352
Nov 00	1,281	1,235	1,338
Dec 00	1,320	1,246	1,382
Jan 01	1,190	1,134	1,255
Feb 01	1,287	1,233	1,358
Mar 01	1,271	1,236	1,294
Apr 01	1,284	1,282	1,322
May 01	1,258	1,226	1,272
Jun 01	1,288	1,294	1,278
Jul 01	1,231	1,275	1,165
Aug 01	1,229	1,212	1,242
Sep 01	1,170	1,106	1,217
Oct 01	1,177	1,096	1,235
Nov 01	1,047	1,027	1,059
Dec 01	1,180	1,200	1,119
Jan 02	1,255	1,266	1,234
Feb 02	1,210	1,174	1,222
Mar 02	1,120	1,109	1,120
Apr 02	1,322	1,342	1,258
May 02	1,299	1,281	1,274
Jun 02	1,318	1,294	1,302
Jul 02	1,395	1,445	1,345
Aug 02	1,369	1,357	1,388
Sep 02	1,342	1,373	1,302
Oct 02	1,355	1,374	1,325
Nov 02	1,360	1,396	1,338
Dec 02	1,366	1,333	1,388
Jan 03	1,335	1,290	1,342
Feb 03	1,310	1,290	1,290
Mar 03	1,330	1,295	1,351
Apr 03	1,374	1,358	1,410
May 03	1,322	1,283	1,332
Jun 03	1,280	1,258	1,285
Jul 03	1,375	1,334	1,384
Aug 03	1,323	1,299	1,339
Sep 03	1,395	1,318	1,415
Oct 03	1,396	1,305	1,461
Nov 03	1,306	1,214	1,368
Dec 03	1,359	1,351	1,390
Jan 04	1,351	1,283	1,387

Jun 00	1,203	1,167	1,233
Jul 00	1,273	1,230	1,313
Aug 00	1,194	1,161	1,229
Sep 00	1,189	1,195	1,208
Oct 00	1,172	1,160	1,202
Nov 00	1,177	1,183	1,183
Dec 00	1,193	1,164	1,213
Jan 01	1,219	1,200	1,250
Feb 01	1,158	1,153	1,141
Mar 01	1,070	1,049	1,074
Apr 01	1,113	1,114	1,079
May 01	1,024	1,036	0,987
Jun 01	0,944	0,919	0,961
Jul 01	0,895	0,860	0,911
Aug 01	0,878	0,775	0,917
Sep 01	0,995	0,952	0,968
Oct 01	1,019	1,030	0,982
Nov 01	1,013	1,037	0,999
Dec 01	0,917	0,886	0,918
Jan 02	0,985	0,977	0,933
Feb 02	0,988	0,986	0,982
Mar 02	0,955	1,040	0,864
Apr 02	1,074	1,102	1,033
May 02	1,112	1,027	1,169
Jun 02	1,143	1,152	1,146
Jul 02	1,176	1,169	1,190
Aug 02	1,188	1,209	1,193
Sep 02	1,187	1,092	1,263
Oct 02	1,188	1,169	1,153
Nov 02	1,178	1,132	1,206
Dec 02	1,249	1,225	1,268
Jan 03	1,123	1,058	1,180
Feb 03	1,144	1,100	1,143
Mar 03	1,062	1,043	1,015
Apr 03	1,177	1,129	1,198
May 03	1,116	1,047	1,162
Jun 03	1,182	1,087	1,236
Jul 03	1,265	1,237	1,278
Aug 03	1,289	1,263	1,322
Sep 03	1,314	1,238	1,380
Oct 03	1,320	1,262	1,382
Nov 03	1,314	1,198	1,391
Dec 03	1,297	1,196	1,314
Jan 04	1,273	1,254	1,271

Feb 04	1,386	1,342	1,404	Feb 04	1,302	1,171	1,358
Mar 04	1,400	1,362	1,409	Mar 04	1,336	1,368	1,305
Apr 04	1,335	1,256	1,373	Apr 04	1,360	1,331	1,387
May 04	1,373	1,387	1,358	May 04	1,344	1,179	1,431
Jun 04	1,441	1,391	1,461	Jun 04	1,386	1,318	1,423
Jul 04	1,366	1,414	1,333	Jul 04	1,325	1,314	1,342
Aug 04	1,395	1,395	1,419	Aug 04	1,234	1,242	1,249
Sep 04	1,322	1,321	1,321	Sep 04	1,213	1,190	1,221
Oct 04	1,302	1,268	1,334	Oct 04	1,173	1,078	1,255
Nov 04	1,283	1,299	1,264	Nov 04	1,222	1,198	1,272
Dec 04	1,260	1,229	1,304	Dec 04	1,258	1,228	1,321
Jan 05	1,215	1,131	1,303	Jan 05	1,254	1,206	1,305
Feb 05	1,333	1,353	1,355	Feb 05	1,240	1,204	1,254
Mar 05	1,305	1,337	1,291	Mar 05	1,171	1,159	1,176
Apr 05	1,295	1,254	1,358	Apr 05	1,154	0,984	1,270
May 05	1,270	1,245	1,301	May 05	1,174	1,183	1,206
Jun 05	1,254	1,227	1,284	Jun 05	1,172	1,188	1,171
Jul 05	1,235	1,114	1,310	Jul 05	1,166	1,211	1,158
Aug 05	1,222	1,332	1,176	Aug 05	1,045	0,980	1,089
Sep 05	1,246	1,273	1,230	Sep 05	1,161	1,124	1,174
Oct 05	1,213	1,198	1,191	Oct 05	1,087	0,976	1,126
Nov 05	1,182	1,208	1,183	Nov 05	1,088	0,995	1,146
Dec 05	1,242	1,207	1,251	Dec 05	1,082	0,941	1,203
Jan 06	1,143	1,069	1,174	Jan 06	1,194	1,100	1,283
Feb 06	1,165	1,143	1,185	Feb 06	1,181	1,082	1,268
Mar 06	1,194	1,177	1,233	Mar 06	1,222	1,098	1,280
Apr 06	1,252	1,208	1,351	Apr 06	1,195	0,993	1,312
May 06	1,257	1,120	1,349	May 06	1,217	1,205	1,270
Jun 06	1,336	1,226	1,397	Jun 06	1,236	1,149	1,289
Jul 06	1,325	1,261	1,374	Jul 06	1,222	1,233	1,236
Aug 06	1,323	1,265	1,389	Aug 06	1,219	1,218	1,235
Sep 06	1,300	1,242	1,351	Sep 06	1,192	1,086	1,255
Oct 06	1,284	1,177	1,370	Oct 06	1,197	1,098	1,251
Nov 06	1,260	1,223	1,295	Nov 06	1,179	1,097	1,243
Dec 06	1,284	1,234	1,338	Dec 06	1,263	1,280	1,265
Jan 07	1,249	1,189	1,304	Jan 07	1,223	1,275	1,236
Feb 07	1,260	1,151	1,350	Feb 07	1,238	1,150	1,288
Mar 07	1,304	1,284	1,331	Mar 07	1,172	1,077	1,239
Apr 07	1,273	1,253	1,323	Apr 07	1,179	1,201	1,170
May 07	1,261	1,097	1,345	May 07	1,238	1,234	1,254
Jun 07	1,274	1,260	1,281	Jun 07	1,228	1,152	1,281
Jul 07	1,226	1,169	1,273	Jul 07	1,234	1,028	1,336
Aug 07	1,246	1,153	1,307	Aug 07	1,249	1,177	1,298
Sep 07	1,225	1,095	1,305	Sep 07	1,180	1,054	1,251

Oct 07	1,212	1,105	1,284
Nov 07	1,274	1,304	1,287
Dec 07	1,266	1,169	1,330
Jan 08	1,302	1,290	1,332
Feb 08	1,261	1,204	1,306
Mar 08	1,212	1,069	1,315
Apr 08	1,265	1,048	1,376
May 08	1,258	0,909	1,373
Jun 08	1,365	1,110	1,401
Jul 08	1,275	1,190	1,304
Aug 08	1,361	1,317	1,378
Sep 08	1,369	1,419	1,364
Oct 08	1,358	1,068	1,401
Nov 08	1,265	1,082	1,294
Dec 08	1,297	0,998	1,339
Jan 09	1,254	1,131	1,279
Feb 09	1,056	1,027	1,060
Mar 09	1,040	1,043	1,019
Apr 09	1,070	1,222	1,032
May 09	0,866	0,870	0,878
Jun 09	1,131	1,238	1,109
Jul 09	1,385	1,490	1,354
Aug 09	1,293	1,362	1,279
Sep 09	1,295	1,339	1,271
Oct 09	1,332	1,370	1,295
Nov 09	1,366	1,341	1,368
Dec 09	1,304	1,351	1,291
Jan 10	1,360	1,460	1,330
Feb 10	1,366	1,344	1,367
Mar 10	1,351	1,235	1,379
Apr 10	1,379	1,434	1,379

Oct 07	1,151	1,018	1,241
Nov 07	1,157	0,936	1,261
Dec 07	1,206	1,106	1,265
Jan 08	1,237	1,028	1,359
Feb 08	1,104	0,800	1,249
Mar 08	1,296	1,161	1,321
Apr 08	1,192	1,065	1,226
May 08	1,191	1,174	1,193
Jun 08	1,216	1,222	1,226
Jul 08	1,289	1,017	1,332
Aug 08	1,248	1,058	1,285
Sep 08	1,204	0,986	1,241
Oct 08	1,174	1,170	1,172
Nov 08	1,093	1,043	1,105
Dec 08	1,009	1,091	0,979
Jan 09	0,886		0,905
Feb 09	0,624	0,976	0,535
Mar 09	0,735	0,826	0,725
Apr 09	1,146		1,157
May 09	1,110	1,166	1,096
Jun 09	1,099	1,142	1,090
Jul 09	1,175	1,157	1,159
Aug 09	1,319	1,448	1,284
Sep 09	1,235	1,289	1,209
Oct 09	1,238	1,285	1,220
Nov 09	1,252	1,361	1,224
Dec 09	1,248	1,197	1,270
Jan 10	1,190	1,301	1,179
Feb 10	1,227	1,186	1,235
Mar 10	1,277	1,186	1,282
Apr 10	1,196	1,259	1,195

Figure A1. Entropy of production expectations (for all firms, public sector, and private sector)

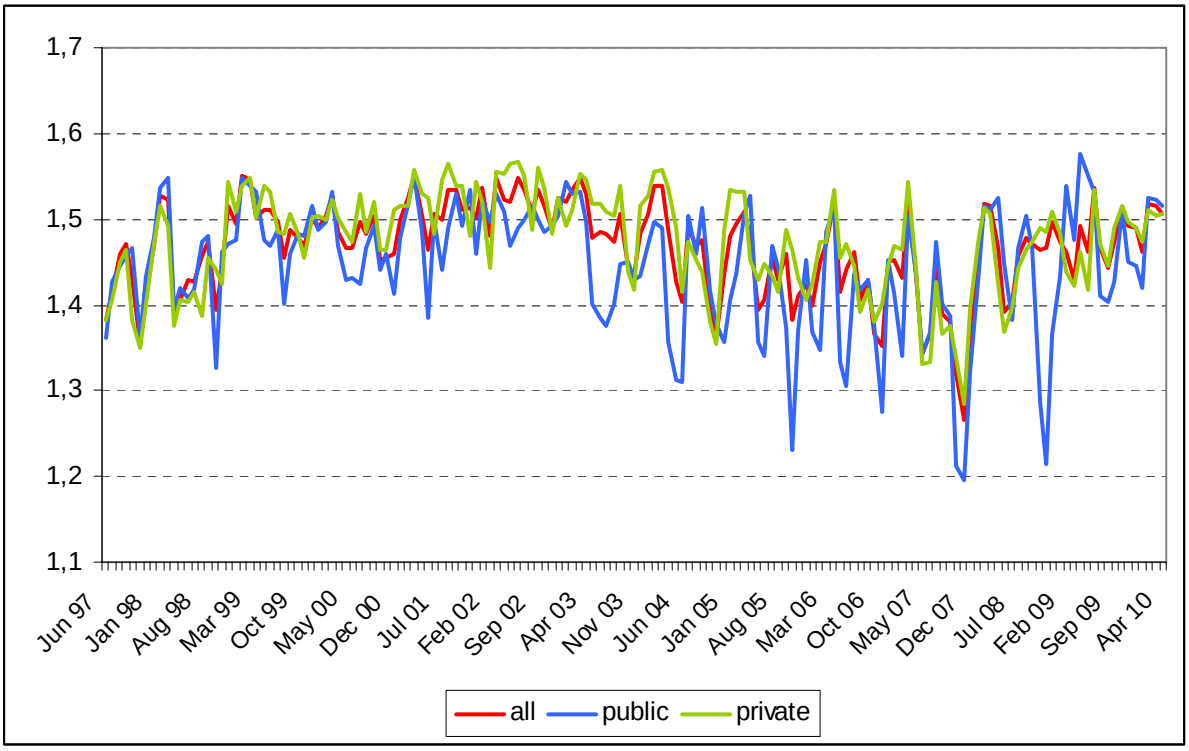


Figure A2. Entropy of observed production (for all firms, public sector, and private sector)

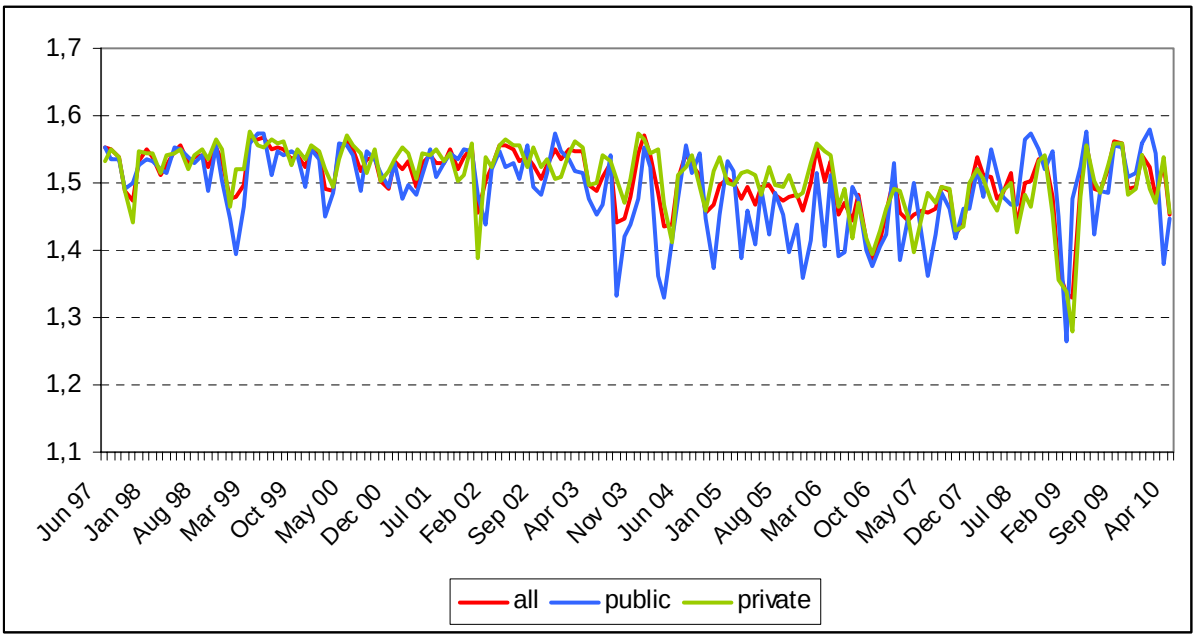


Figure A3. Entropy of price expectations (for all firms, public sector, and private sector)

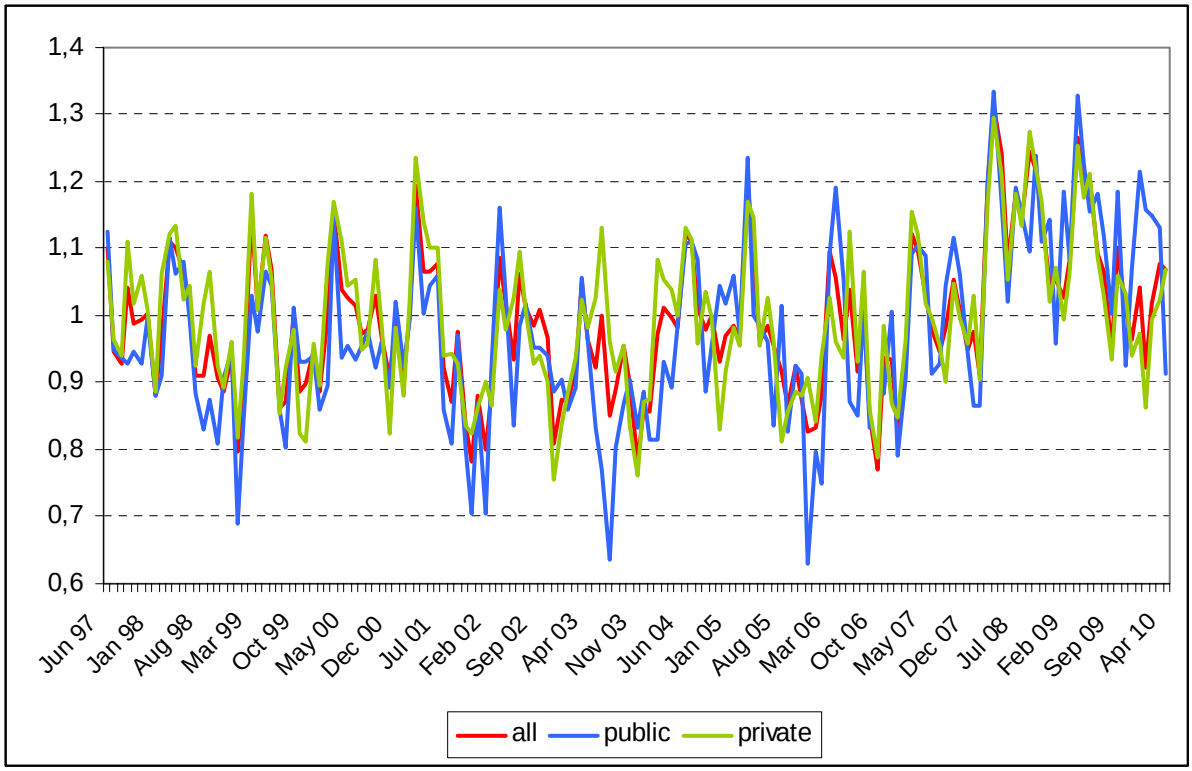


Figure A4. Entropy of observed prices (for all firms, public sector, and private sector)

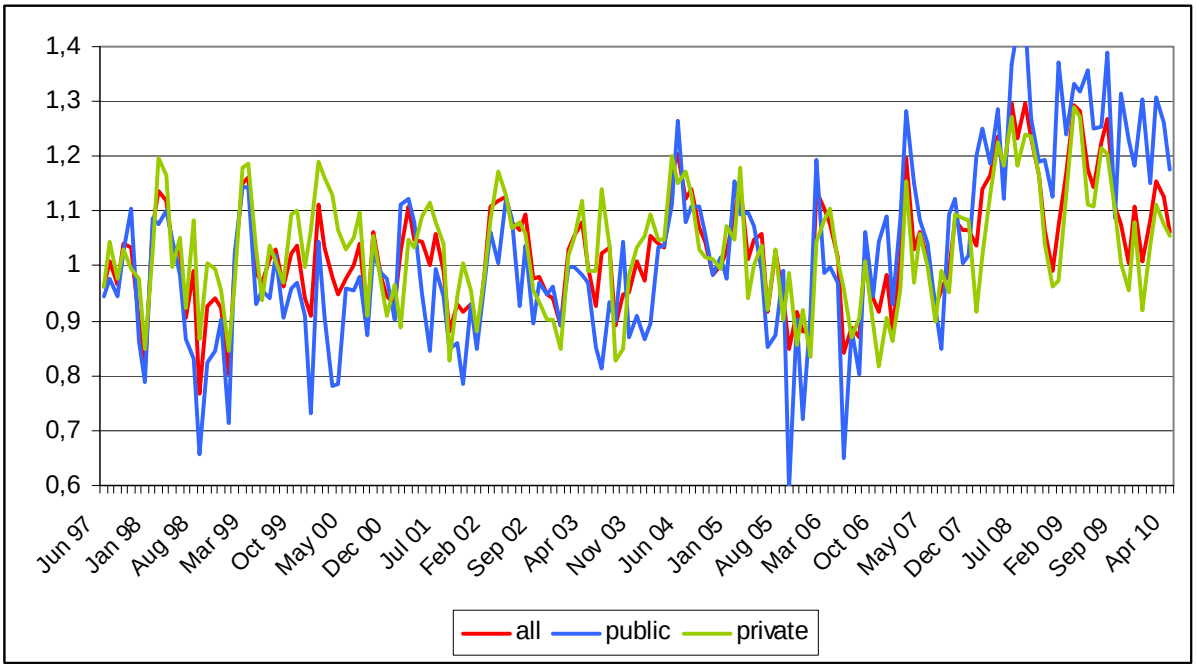


Figure A5. Entropy of employment expectations (for all firms, public sector, and private sector)

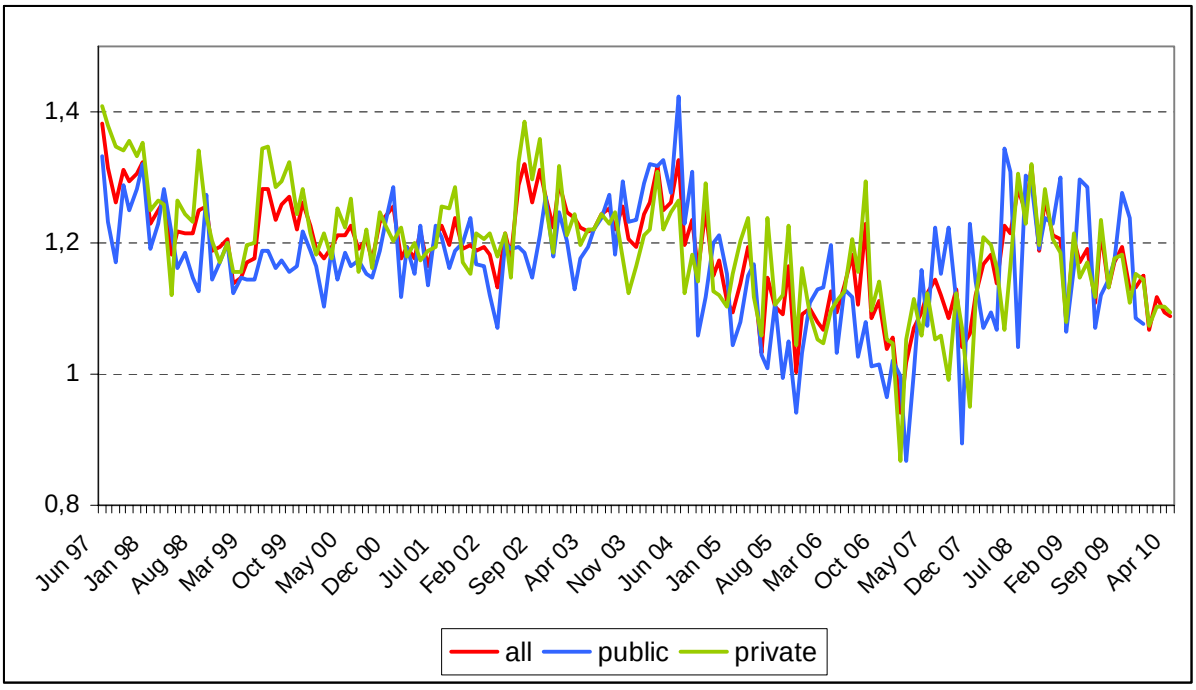


Figure A6. Entropy of observed employment (for all firms, public sector, and private sector)

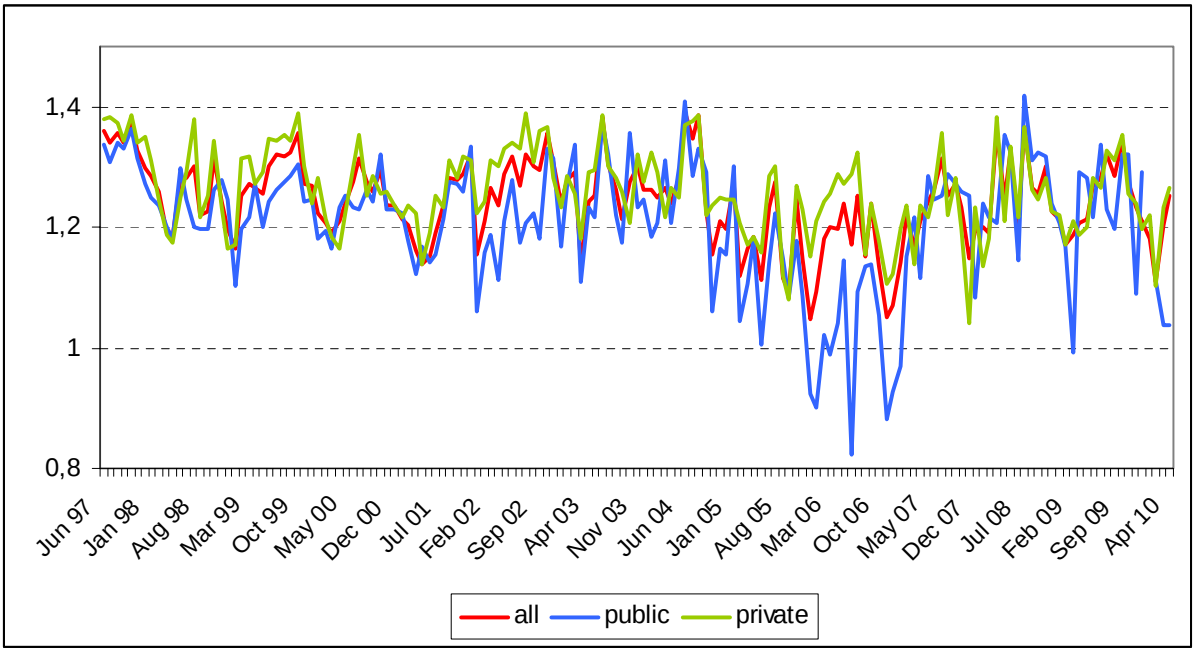


Figure A7. Entropy of general business conditions expectations (for all firms, public sector, and private sector)

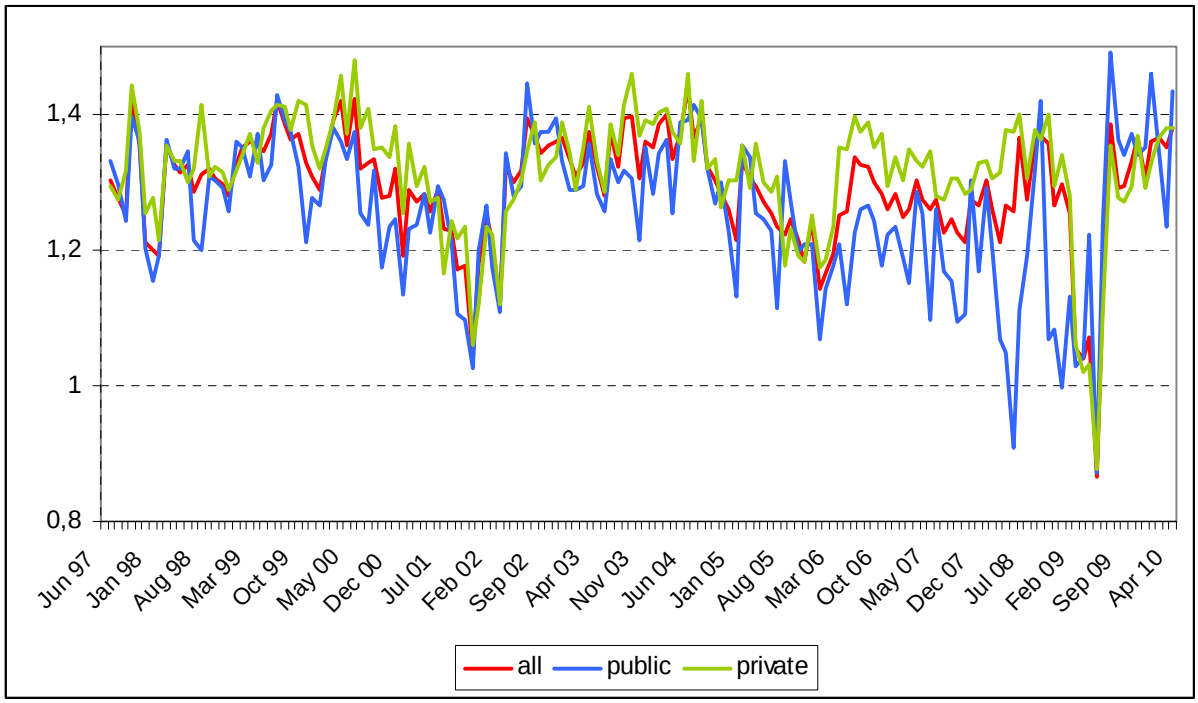
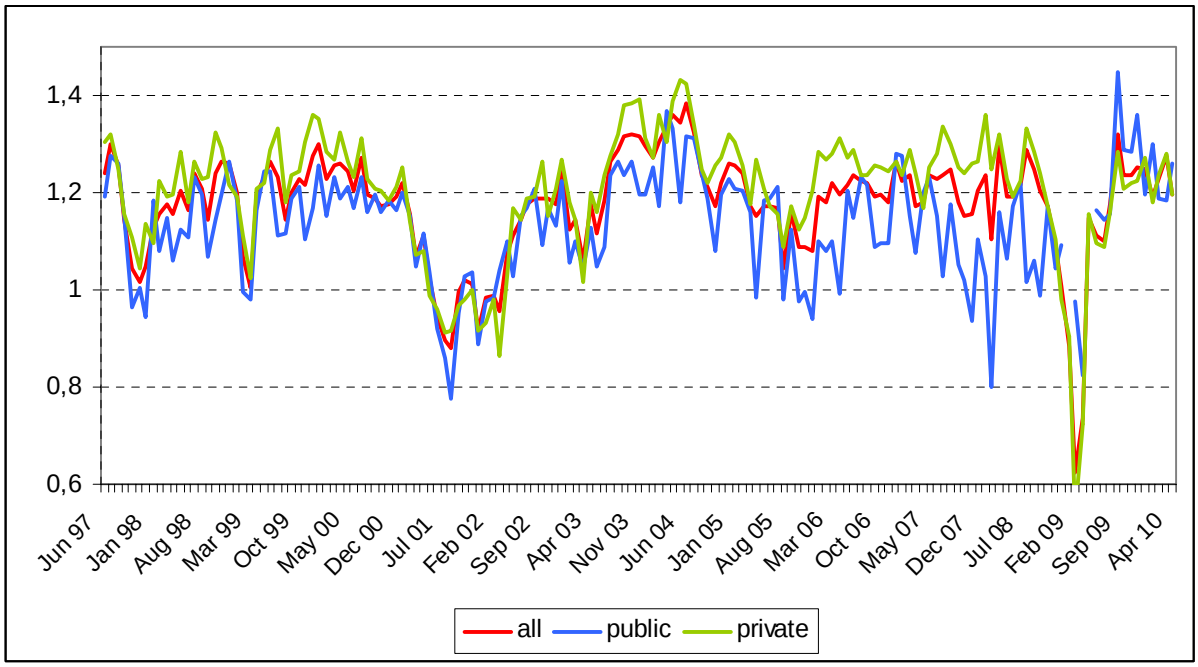


Figure A8. Entropy of observed business conditions (for all firms, public sector, and private sector)



Appendix III. Measures of dissimilarity

Table A9. Dissimilarity of structure for production (all firms, public sector, and private sector): 3-month forecast horizon

Table A10. Dissimilarity of structure for production (all firms, public sector, and private sector): 4-month forecast horizon

Table A9

	all	public	private
Jun 97	0,179	0,178	0,200
Jul 97	0,179	0,203	0,162
Aug 97	0,076	0,076	0,090
Sep 97	0,042	0,066	0,054
Oct 97	0,026	0,043	0,031
Nov 97	0,143	0,124	0,183
Dec 97	0,207	0,164	0,268
Jan 98	0,144	0,158	0,127
Feb 98	0,056	0,039	0,065
Mar 98	0,081	0,075	0,092
Apr 98	0,129	0,138	0,124
May 98	0,179	0,182	0,158
Jun 98	0,173	0,215	0,162
Jul 98	0,171	0,211	0,150
Aug 98	0,144	0,159	0,191
Sep 98	0,090	0,158	0,083
Oct 98	0,139	0,172	0,129
Nov 98	0,230	0,234	0,240
Dec 98	0,278	0,311	0,261
Jan 99	0,245	0,308	0,189
Feb 99	0,070	0,087	0,033
Mar 99	0,091	0,073	0,108
Apr 99	0,096	0,069	0,092
May 99	0,111	0,143	0,051
Jun 99	0,147	0,218	0,097
Jul 99	0,135	0,155	0,136
Aug 99	0,152	0,192	0,121
Sep 99	0,053	0,089	0,030
Oct 99	0,067	0,056	0,078
Nov 99	0,121	0,135	0,144
Dec 99	0,142	0,145	0,148
Jan 00	0,133	0,174	0,094
Feb 00	0,047	0,033	0,077

Table A10

	all	public	private
Jun 97	N/A	N/A	N/A
Jul 97	0,242	0,281	0,221
Aug 97	0,116	0,100	0,131
Sep 97	0,025	0,034	0,073
Oct 97	0,037	0,030	0,048
Nov 97	0,145	0,135	0,159
Dec 97	0,237	0,203	0,291
Jan 98	0,188	0,203	0,177
Feb 98	0,137	0,090	0,173
Mar 98	0,013	0,051	0,034
Apr 98	0,031	0,011	0,051
May 98	0,183	0,195	0,146
Jun 98	0,176	0,157	0,184
Jul 98	0,205	0,272	0,179
Aug 98	0,146	0,157	0,174
Sep 98	0,128	0,194	0,130
Oct 98	0,089	0,088	0,114
Nov 98	0,246	0,295	0,220
Dec 98	0,336	0,328	0,359
Jan 99	0,263	0,370	0,178
Feb 99	0,212	0,220	0,193
Mar 99	0,024	0,024	0,059
Apr 99	0,050	0,079	0,045
May 99	0,092	0,081	0,058
Jun 99	0,103	0,156	0,060
Jul 99	0,160	0,203	0,128
Aug 99	0,132	0,155	0,120
Sep 99	0,075	0,131	0,044
Oct 99	0,077	0,111	0,051
Nov 99	0,099	0,136	0,102
Dec 99	0,179	0,179	0,200
Jan 00	0,155	0,183	0,123
Feb 00	0,105	0,102	0,124

Mar 00	0,040	0,057	0,062	Mar 00	0,055	0,080	0,059
Apr 00	0,070	0,092	0,042	Apr 00	0,053	0,065	0,091
May 00	0,143	0,165	0,115	May 00	0,116	0,131	0,080
Jun 00	0,088	0,100	0,086	Jun 00	0,090	0,101	0,079
Jul 00	0,153	0,217	0,114	Jul 00	0,182	0,239	0,144
Aug 00	0,100	0,104	0,120	Aug 00	0,104	0,142	0,108
Sep 00	0,056	0,064	0,044	Sep 00	0,048	0,061	0,067
Oct 00	0,056	0,065	0,086	Oct 00	0,009	0,036	0,073
Nov 00	0,170	0,185	0,142	Nov 00	0,125	0,141	0,109
Dec 00	0,236	0,281	0,198	Dec 00	0,256	0,272	0,250
Jan 01	0,111	0,154	0,067	Jan 01	0,192	0,233	0,142
Feb 01	0,023	0,077	0,036	Feb 01	0,081	0,104	0,051
Mar 01	0,080	0,104	0,073	Mar 01	0,029	0,082	0,075
Apr 01	0,109	0,119	0,115	Apr 01	0,046	0,061	0,018
May 01	0,180	0,203	0,158	May 01	0,141	0,134	0,153
Jun 01	0,107	0,092	0,136	Jun 01	0,154	0,219	0,097
Jul 01	0,178	0,240	0,134	Jul 01	0,179	0,203	0,177
Aug 01	0,097	0,158	0,075	Aug 01	0,122	0,176	0,100
Sep 01	0,028	0,008	0,069	Sep 01	0,067	0,083	0,094
Oct 01	0,078	0,079	0,104	Oct 01	0,040	0,025	0,088
Nov 01	0,118	0,102	0,139	Nov 01	0,125	0,128	0,124
Dec 01	0,227	0,265	0,194	Dec 01	0,223	0,228	0,231
Jan 02	0,128	0,231	0,048	Jan 02	0,215	0,303	0,128
Feb 02	0,035	0,066	0,071	Feb 02	0,084	0,150	0,033
Mar 02	0,032	0,051	0,068	Mar 02	0,083	0,090	0,102
Apr 02	0,044	0,029	0,021	Apr 02	0,051	0,088	0,056
May 02	0,079	0,118	0,042	May 02	0,064	0,071	0,011
Jun 02	0,100	0,137	0,070	Jun 02	0,099	0,136	0,066
Jul 02	0,089	0,102	0,115	Jul 02	0,090	0,113	0,120
Aug 02	0,037	0,044	0,082	Aug 02	0,034	0,040	0,024
Sep 02	0,042	0,029	0,048	Sep 02	0,015	0,049	0,045
Oct 02	0,018	0,026	0,012	Oct 02	0,040	0,069	0,031
Nov 02	0,089	0,100	0,093	Nov 02	0,055	0,103	0,060
Dec 02	0,167	0,154	0,176	Dec 02	0,206	0,164	0,240
Jan 03	0,068	0,060	0,100	Jan 03	0,108	0,126	0,118
Feb 03	0,019	0,051	0,068	Feb 03	0,065	0,077	0,099
Mar 03	0,003	0,023	0,013	Mar 03	0,055	0,058	0,088
Apr 03	0,065	0,056	0,080	Apr 03	0,097	0,082	0,129
May 03	0,090	0,162	0,046	May 03	0,049	0,084	0,050
Jun 03	0,095	0,117	0,082	Jun 03	0,096	0,165	0,052
Jul 03	0,060	0,113	0,100	Jul 03	0,079	0,124	0,102
Aug 03	0,026	0,061	0,028	Aug 03	0,049	0,067	0,023
Sep 03	0,074	0,067	0,089	Sep 03	0,037	0,044	0,029
Oct 03	0,031	0,007	0,070	Oct 03	0,057	0,029	0,083

Nov 03	0,099	0,123	0,146	Nov 03	0,089	0,026	0,137
Dec 03	0,167	0,133	0,190	Dec 03	0,203	0,166	0,244
Jan 04	0,039	0,046	0,041	Jan 04	0,097	0,084	0,110
Feb 04	0,064	0,103	0,016	Feb 04	0,036	0,084	0,043
Mar 04	0,105	0,110	0,109	Mar 04	0,149	0,179	0,153
Apr 04	0,074	0,033	0,132	Apr 04	0,138	0,065	0,205
May 04	0,066	0,101	0,049	May 04	0,025	0,082	0,032
Jun 04	0,104	0,184	0,086	Jun 04	0,107	0,184	0,075
Jul 04	0,044	0,009	0,080	Jul 04	0,101	0,133	0,120
Aug 04	0,036	0,077	0,029	Aug 04	0,028	0,060	0,015
Sep 04	0,028	0,074	0,015	Sep 04	0,012	0,018	0,014
Oct 04	0,057	0,105	0,149	Oct 04	0,033	0,130	0,057
Nov 04	0,178	0,227	0,185	Nov 04	0,096	0,132	0,125
Dec 04	0,175	0,173	0,194	Dec 04	0,236	0,226	0,285
Jan 05	0,139	0,204	0,094	Jan 05	0,209	0,288	0,166
Feb 05	0,039	0,068	0,028	Feb 05	0,089	0,082	0,079
Mar 05	0,045	0,044	0,055	Mar 05	0,013	0,016	0,015
Apr 05	0,021	0,114	0,057	Apr 05	0,036	0,081	0,039
May 05	0,104	0,112	0,083	May 05	0,033	0,052	0,032
Jun 05	0,099	0,167	0,067	Jun 05	0,091	0,111	0,069
Jul 05	0,068	0,107	0,051	Jul 05	0,077	0,118	0,055
Aug 05	0,064	0,116	0,066	Aug 05	0,097	0,161	0,063
Sep 05	0,022	0,042	0,083	Sep 05	0,036	0,028	0,084
Oct 05	0,078	0,115	0,026	Oct 05	0,037	0,058	0,010
Nov 05	0,092	0,108	0,116	Nov 05	0,086	0,104	0,100
Dec 05	0,111	0,124	0,149	Dec 05	0,128	0,099	0,160
Jan 06	0,179	0,188	0,170	Jan 06	0,200	0,217	0,200
Feb 06	0,042	0,036	0,074	Feb 06	0,090	0,038	0,117
Mar 06	0,097	0,103	0,090	Mar 06	0,139	0,164	0,142
Apr 06	0,080	0,082	0,099	Apr 06	0,137	0,108	0,184
May 06	0,047	0,047	0,036	May 06	0,046	0,090	0,039
Jun 06	0,038	0,106	0,068	Jun 06	0,065	0,091	0,076
Jul 06	0,035	0,064	0,017	Jul 06	0,070	0,110	0,047
Aug 06	0,054	0,040	0,075	Aug 06	0,134	0,057	0,186
Sep 06	0,049	0,106	0,032	Sep 06	0,053	0,043	0,078
Oct 06	0,080	0,092	0,087	Oct 06	0,083	0,106	0,087
Nov 06	0,111	0,074	0,166	Nov 06	0,127	0,108	0,166
Dec 06	0,159	0,101	0,182	Dec 06	0,166	0,156	0,212
Jan 07	0,009	0,033	0,027	Jan 07	0,129	0,156	0,111
Feb 07	0,048	0,062	0,082	Feb 07	0,022	0,043	0,057
Mar 07	0,103	0,095	0,148	Mar 07	0,120	0,147	0,148
Apr 07	0,035	0,057	0,025	Apr 07	0,103	0,115	0,122
May 07	0,140	0,260	0,095	May 07	0,050	0,089	0,036
Jun 07	0,117	0,144	0,100	Jun 07	0,089	0,119	0,082

Jul 07	0,113	0,183	0,080
Aug 07	0,065	0,050	0,110
Sep 07	0,067	0,065	0,088
Oct 07	0,074	0,151	0,054
Nov 07	0,122	0,117	0,132
Dec 07	0,228	0,159	0,254
Jan 08	0,140	0,215	0,083
Feb 08	0,041	0,112	0,039
Mar 08	0,089	0,074	0,138
Apr 08	0,077	0,125	0,074
May 08	0,111	0,183	0,090
Jun 08	0,263	0,185	0,271
Jul 08	0,129	0,151	0,153
Aug 08	0,155	0,124	0,210
Sep 08	0,134	0,122	0,140
Oct 08	0,128	0,280	0,095
Nov 08	0,194	0,336	0,166
Dec 08	0,331	0,380	0,316
Jan 09	0,197	0,236	0,198
Feb 09	0,083	0,077	0,082
Mar 09	0,045	0,041	0,038
Apr 09	0,090	0,030	0,105
May 09	0,077	0,101	0,093
Jun 09	0,042	0,043	0,047
Jul 09	0,091	0,103	0,092
Aug 09	0,146	0,209	0,141
Sep 09	0,121	0,210	0,103
Oct 09	0,030	0,079	0,059
Nov 09	0,115	0,190	0,103
Dec 09	0,153	0,218	0,131
Jan 10	0,103	0,192	0,110
Feb 10	0,032	0,078	0,032
Mar 10	0,070	0,105	0,072
Apr 10	0,119	0,085	0,127

Jul 07	0,213	0,291	0,163
Aug 07	0,025	0,030	0,058
Sep 07	0,077	0,020	0,139
Oct 07	0,041	0,047	0,044
Nov 07	0,098	0,149	0,098
Dec 07	0,273	0,216	0,308
Jan 08	0,190	0,252	0,140
Feb 08	0,112	0,201	0,086
Mar 08	0,115	0,030	0,147
Apr 08	0,048	0,121	0,017
May 08	0,066	0,178	0,058
Jun 08	0,138	0,146	0,120
Jul 08	0,229	0,213	0,252
Aug 08	0,160	0,139	0,210
Sep 08	0,152	0,103	0,170
Oct 08	0,111	0,153	0,104
Nov 08	0,210	0,324	0,184
Dec 08	0,342	0,421	0,326
Jan 09	0,331	0,433	0,310
Feb 09	0,210	0,162	0,222
Mar 09	0,024	0,016	0,028
Apr 09	0,149	0,159	0,156
May 09	0,049	0,162	0,062
Jun 09	0,073	0,097	0,074
Jul 09	0,023	0,092	0,016
Aug 09	0,129	0,203	0,122
Sep 09	0,119	0,226	0,119
Oct 09	0,075	0,074	0,105
Nov 09	0,033	0,081	0,031
Dec 09	0,190	0,216	0,176
Jan 10	0,145	0,205	0,138
Feb 10	0,036	0,107	0,044
Mar 10	0,078	0,130	0,066
Apr 10	0,167	0,068	0,196

Table A11. Dissimilarity of structure for prices (all firms, public sector, and private sector): 3-month forecast horizon

Table A12. Dissimilarity of structure for prices (all firms, public sector, and private sector): 4-month forecast horizon

Table A11

	all	public	private
Jun 97	0,139	0,164	0,103
Jul 97	0,018	0,009	0,021
Aug 97	0,010	0,025	0,012
Sep 97	0,038	0,029	0,048
Oct 97	0,018	0,057	0,010
Nov 97	0,085	0,092	0,075
Dec 97	0,105	0,137	0,075
Jan 98	0,114	0,133	0,081
Feb 98	0,067	0,053	0,074
Mar 98	0,228	0,251	0,209
Apr 98	0,211	0,148	0,269
May 98	0,151	0,160	0,134
Jun 98	0,155	0,148	0,176
Jul 98	0,061	0,092	0,075
Aug 98	0,051	0,066	0,052
Sep 98	0,063	0,064	0,073
Oct 98	0,071	0,048	0,087
Nov 98	0,073	0,079	0,082
Dec 98	0,109	0,135	0,097
Jan 99	0,071	0,112	0,047
Feb 99	0,092	0,108	0,089
Mar 99	0,126	0,112	0,108
Apr 99	0,091	0,114	0,053
May 99	0,096	0,098	0,089
Jun 99	0,071	0,069	0,067
Jul 99	0,059	0,052	0,073
Aug 99	0,031	0,031	0,029
Sep 99	0,032	0,029	0,059
Oct 99	0,068	0,049	0,115
Nov 99	0,040	0,024	0,071
Dec 99	0,015	0,082	0,055
Jan 00	0,111	0,099	0,145
Feb 00	0,018	0,021	0,030
Mar 00	0,170	0,237	0,115
Apr 00	0,138	0,151	0,129
May 00	0,055	0,026	0,067

Table A12

	all	public	private
Jun 97	N/A	N/A	N/A
Jul 97	0,079	0,100	0,062
Aug 97	0,009	0,015	0,009
Sep 97	0,052	0,033	0,061
Oct 97	0,014	0,055	0,049
Nov 97	0,082	0,089	0,050
Dec 97	0,096	0,118	0,097
Jan 98	0,029	0,031	0,008
Feb 98	0,133	0,112	0,162
Mar 98	0,036	0,051	0,036
Apr 98	0,274	0,292	0,259
May 98	0,267	0,182	0,336
Jun 98	0,208	0,239	0,187
Jul 98	0,126	0,158	0,111
Aug 98	0,083	0,101	0,073
Sep 98	0,024	0,037	0,017
Oct 98	0,079	0,070	0,099
Nov 98	0,088	0,088	0,087
Dec 98	0,111	0,112	0,130
Jan 99	0,025	0,028	0,029
Feb 99	0,124	0,153	0,128
Mar 99	0,096	0,105	0,094
Apr 99	0,172	0,166	0,139
May 99	0,090	0,096	0,087
Jun 99	0,109	0,133	0,074
Jul 99	0,052	0,029	0,070
Aug 99	0,030	0,019	0,036
Sep 99	0,061	0,062	0,071
Oct 99	0,042	0,030	0,076
Nov 99	0,057	0,036	0,087
Dec 99	0,032	0,059	0,106
Jan 00	0,083	0,057	0,120
Feb 00	0,071	0,049	0,124
Mar 00	0,008	0,035	0,019
Apr 00	0,218	0,254	0,177
May 00	0,109	0,090	0,122

Jun 00	0,013	0,013	0,001
Jul 00	0,025	0,010	0,052
Aug 00	0,051	0,042	0,060
Sep 00	0,039	0,054	0,059
Oct 00	0,036	0,043	0,040
Nov 00	0,059	0,037	0,068
Dec 00	0,066	0,080	0,056
Jan 01	0,042	0,072	0,006
Feb 01	0,047	0,055	0,048
Mar 01	0,183	0,206	0,174
Apr 01	0,129	0,168	0,106
May 01	0,083	0,127	0,063
Jun 01	0,090	0,116	0,063
Jul 01	0,053	0,056	0,070
Aug 01	0,023	0,016	0,057
Sep 01	0,043	0,086	0,007
Oct 01	0,026	0,015	0,056
Nov 01	0,087	0,115	0,070
Dec 01	0,084	0,089	0,087
Jan 02	0,071	0,103	0,030
Feb 02	0,085	0,047	0,117
Mar 02	0,102	0,098	0,121
Apr 02	0,140	0,122	0,152
May 02	0,117	0,106	0,115
Jun 02	0,070	0,071	0,073
Jul 02	0,033	0,027	0,023
Aug 02	0,021	0,030	0,015
Sep 02	0,013	0,028	0,010
Oct 02	0,024	0,049	0,008
Nov 02	0,061	0,059	0,062
Dec 02	0,048	0,048	0,055
Jan 03	0,058	0,050	0,054
Feb 03	0,057	0,037	0,071
Mar 03	0,042	0,052	0,069
Apr 03	0,013	0,017	0,002
May 03	0,036	0,022	0,040
Jun 03	0,032	0,057	0,008
Jul 03	0,065	0,087	0,032
Aug 03	0,007	0,029	0,027
Sep 03	0,011	0,060	0,046
Oct 03	0,032	0,020	0,062
Nov 03	0,074	0,032	0,089
Dec 03	0,038	0,011	0,062
Jan 04	0,072	0,101	0,078

Jun 00	0,040	0,017	0,051
Jul 00	0,022	0,016	0,035
Aug 00	0,033	0,032	0,041
Sep 00	0,036	0,045	0,041
Oct 00	0,073	0,095	0,057
Nov 00	0,053	0,031	0,081
Dec 00	0,066	0,035	0,079
Jan 01	0,015	0,030	0,037
Feb 01	0,067	0,068	0,059
Mar 01	0,067	0,078	0,071
Apr 01	0,201	0,256	0,163
May 01	0,143	0,188	0,118
Jun 01	0,073	0,094	0,067
Jul 01	0,120	0,147	0,087
Aug 01	0,023	0,011	0,048
Sep 01	0,039	0,037	0,025
Oct 01	0,034	0,074	0,030
Nov 01	0,061	0,093	0,042
Dec 01	0,098	0,116	0,080
Jan 02	0,067	0,075	0,061
Feb 02	0,113	0,114	0,116
Mar 02	0,129	0,084	0,150
Apr 02	0,107	0,084	0,122
May 02	0,131	0,109	0,137
Jun 02	0,116	0,104	0,122
Jul 02	0,037	0,055	0,032
Aug 02	0,012	0,037	0,018
Sep 02	0,001	0,017	0,014
Oct 02	0,019	0,031	0,020
Nov 02	0,023	0,035	0,015
Dec 02	0,049	0,034	0,060
Jan 03	0,072	0,069	0,075
Feb 03	0,066	0,047	0,070
Mar 03	0,064	0,031	0,098
Apr 03	0,020	0,048	0,011
May 03	0,036	0,072	0,019
Jun 03	0,040	0,030	0,047
Jul 03	0,036	0,051	0,046
Aug 03	0,012	0,074	0,048
Sep 03	0,018	0,080	0,022
Oct 03	0,039	0,040	0,062
Nov 03	0,038	0,001	0,066
Dec 03	0,063	0,023	0,097
Jan 04	0,070	0,092	0,077

Feb 04	0,028	0,084	0,026	Feb 04	0,069	0,084	0,062
Mar 04	0,037	0,054	0,024	Mar 04	0,051	0,090	0,017
Apr 04	0,086	0,100	0,085	Apr 04	0,091	0,105	0,086
May 04	0,104	0,140	0,071	May 04	0,104	0,167	0,082
Jun 04	0,005	0,010	0,020	Jun 04	0,062	0,043	0,076
Jul 04	0,047	0,098	0,035	Jul 04	0,032	0,038	0,036
Aug 04	0,045	0,040	0,044	Aug 04	0,071	0,103	0,067
Sep 04	0,048	0,056	0,077	Sep 04	0,053	0,037	0,067
Oct 04	0,017	0,023	0,030	Oct 04	0,079	0,042	0,100
Nov 04	0,043	0,057	0,051	Nov 04	0,023	0,031	0,025
Dec 04	0,058	0,055	0,068	Dec 04	0,085	0,086	0,110
Jan 05	0,067	0,065	0,056	Jan 05	0,067	0,076	0,050
Feb 05	0,070	0,047	0,093	Feb 05	0,063	0,014	0,094
Mar 05	0,080	0,063	0,093	Mar 05	0,045	0,047	0,046
Apr 05	0,048	0,028	0,103	Apr 05	0,076	0,072	0,095
May 05	0,036	0,004	0,032	May 05	0,036	0,016	0,068
Jun 05	0,047	0,036	0,065	Jun 05	0,038	0,039	0,060
Jul 05	0,046	0,055	0,042	Jul 05	0,057	0,053	0,051
Aug 05	0,014	0,015	0,055	Aug 05	0,015	0,051	0,030
Sep 05	0,011	0,058	0,042	Sep 05	0,020	0,122	0,063
Oct 05	0,014	0,071	0,008	Oct 05	0,018	0,054	0,009
Nov 05	0,047	0,060	0,076	Nov 05	0,012	0,089	0,027
Dec 05	0,035	0,088	0,027	Dec 05	0,047	0,017	0,053
Jan 06	0,116	0,145	0,096	Jan 06	0,117	0,191	0,058
Feb 06	0,081	0,076	0,056	Feb 06	0,097	0,062	0,087
Mar 06	0,008	0,043	0,031	Mar 06	0,068	0,123	0,062
Apr 06	0,014	0,088	0,018	Apr 06	0,035	0,049	0,011
May 06	0,045	0,129	0,037	May 06	0,073	0,184	0,037
Jun 06	0,051	0,005	0,089	Jun 06	0,029	0,061	0,036
Jul 06	0,013	0,025	0,013	Jul 06	0,054	0,028	0,078
Aug 06	0,024	0,040	0,019	Aug 06	0,041	0,084	0,024
Sep 06	0,080	0,027	0,098	Sep 06	0,068	0,042	0,080
Oct 06	0,039	0,084	0,013	Oct 06	0,021	0,060	0,014
Nov 06	0,015	0,068	0,027	Nov 06	0,061	0,100	0,038
Dec 06	0,104	0,082	0,113	Dec 06	0,058	0,069	0,056
Jan 07	0,061	0,119	0,031	Jan 07	0,023	0,082	0,054
Feb 07	0,117	0,187	0,082	Feb 07	0,152	0,204	0,130
Mar 07	0,034	0,031	0,072	Mar 07	0,045	0,119	0,011
Apr 07	0,028	0,019	0,033	Apr 07	0,053	0,077	0,048
May 07	0,046	0,037	0,052	May 07	0,038	0,027	0,058
Jun 07	0,027	0,009	0,053	Jun 07	0,045	0,058	0,067
Jul 07	0,045	0,058	0,049	Jul 07	0,041	0,050	0,041
Aug 07	0,021	0,021	0,040	Aug 07	0,036	0,055	0,041
Sep 07	0,020	0,013	0,024	Sep 07	0,043	0,070	0,053

Oct 07	0,044	0,080	0,040
Nov 07	0,053	0,067	0,045
Dec 07	0,031	0,128	0,070
Jan 08	0,079	0,162	0,036
Feb 08	0,016	0,041	0,014
Mar 08	0,032	0,048	0,030
Apr 08	0,045	0,023	0,047
May 08	0,096	0,147	0,104
Jun 08	0,108	0,115	0,129
Jul 08	0,078	0,163	0,046
Aug 08	0,011	0,111	0,033
Sep 08	0,080	0,026	0,096
Oct 08	0,080	0,057	0,094
Nov 08	0,084	0,119	0,076
Dec 08	0,089	0,280	0,081
Jan 09	0,064	0,041	0,069
Feb 09	0,097	0,123	0,102
Mar 09	0,022	0,089	0,009
Apr 09	0,034	0,078	0,037
May 09	0,025	0,054	0,044
Jun 09	0,064	0,036	0,067
Jul 09	0,094	0,125	0,080
Aug 09	0,117	0,097	0,125
Sep 09	0,014	0,066	0,017
Oct 09	0,023	0,117	0,034
Nov 09	0,063	0,046	0,061
Dec 09	0,043	0,072	0,041
Jan 10	0,059	0,169	0,063
Feb 10	0,053	0,080	0,044
Mar 10	0,049	0,075	0,051
Apr 10	0,038	0,108	0,029

Oct 07	0,033	0,087	0,020
Nov 07	0,054	0,087	0,045
Dec 07	0,048	0,089	0,078
Jan 08	0,057	0,166	0,043
Feb 08	0,115	0,129	0,117
Mar 08	0,074	0,105	0,054
Apr 08	0,111	0,151	0,082
May 08	0,048	0,099	0,069
Jun 08	0,080	0,187	0,088
Jul 08	0,072	0,132	0,086
Aug 08	0,042	0,156	0,040
Sep 08	0,066	0,044	0,085
Oct 08	0,122	0,036	0,141
Nov 08	0,125	0,100	0,136
Dec 08	0,094	0,242	0,075
Jan 09	0,093	0,096	0,097
Feb 09	0,120	0,096	0,132
Mar 09	0,088	0,111	0,089
Apr 09	0,039	0,073	0,058
May 09	0,026	0,015	0,028
Jun 09	0,019	0,053	0,009
Jul 09	0,086	0,118	0,083
Aug 09	0,071	0,138	0,067
Sep 09	0,054	0,146	0,056
Oct 09	0,036	0,038	0,039
Nov 09	0,042	0,095	0,030
Dec 09	0,017	0,104	0,007
Jan 10	0,018	0,025	0,026
Feb 10	0,088	0,152	0,094
Mar 10	0,042	0,054	0,033
Apr 10	0,030	0,151	0,015

Table A13. Dissimilarity of structure for employment (all firms, public sector, and private sector): 3-month forecast horizon

Table A14. Dissimilarity of structure for employment (all firms, public sector, and private sector): 4-month forecast horizon

Table A13

	all	public	private
Jun 97	0,012	0,003	0,035
Jul 97	0,026	0,043	0,006
Aug 97	0,042	0,074	0,023
Sep 97	0,021	0,037	0,018
Oct 97	0,037	0,051	0,024
Nov 97	0,010	0,024	0,005
Dec 97	0,062	0,036	0,079
Jan 98	0,054	0,074	0,048
Feb 98	0,066	0,071	0,048
Mar 98	0,107	0,114	0,100
Apr 98	0,016	0,022	0,041
May 98	0,048	0,085	0,014
Jun 98	0,034	0,039	0,020
Jul 98	0,057	0,026	0,100
Aug 98	0,029	0,047	0,059
Sep 98	0,024	0,077	0,005
Oct 98	0,055	0,051	0,078
Nov 98	0,051	0,078	0,064
Dec 98	0,007	0,030	0,017
Jan 99	0,021	0,053	0,013
Feb 99	0,034	0,065	0,052
Mar 99	0,067	0,093	0,047
Apr 99	0,026	0,037	0,023
May 99	0,022	0,005	0,040
Jun 99	0,035	0,022	0,044
Jul 99	0,038	0,059	0,026
Aug 99	0,020	0,029	0,036
Sep 99	0,024	0,070	0,012
Oct 99	0,049	0,046	0,062
Nov 99	0,021	0,051	0,010
Dec 99	0,054	0,044	0,056
Jan 00	0,047	0,115	0,049
Feb 00	0,078	0,089	0,073
Mar 00	0,095	0,121	0,090
Apr 00	0,054	0,049	0,053
May 00	0,092	0,125	0,060

Table A14

	all	public	private
Jun 97	N/A	N/A	N/A
Jul 97	0,020	0,026	0,046
Aug 97	0,025	0,041	0,017
Sep 97	0,035	0,061	0,013
Oct 97	0,030	0,036	0,028
Nov 97	0,024	0,041	0,011
Dec 97	0,067	0,011	0,095
Jan 98	0,083	0,096	0,062
Feb 98	0,060	0,058	0,048
Mar 98	0,087	0,095	0,064
Apr 98	0,107	0,112	0,112
May 98	0,055	0,032	0,067
Jun 98	0,052	0,074	0,021
Jul 98	0,056	0,056	0,077
Aug 98	0,031	0,020	0,064
Sep 98	0,034	0,029	0,052
Oct 98	0,023	0,029	0,060
Nov 98	0,049	0,101	0,050
Dec 98	0,072	0,085	0,077
Jan 99	0,031	0,060	0,039
Feb 99	0,035	0,019	0,049
Mar 99	0,037	0,025	0,056
Apr 99	0,066	0,092	0,033
May 99	0,027	0,031	0,035
Jun 99	0,007	0,047	0,020
Jul 99	0,014	0,046	0,048
Aug 99	0,028	0,033	0,027
Sep 99	0,025	0,047	0,023
Oct 99	0,034	0,047	0,047
Nov 99	0,032	0,062	0,021
Dec 99	0,021	0,009	0,033
Jan 00	0,031	0,089	0,056
Feb 00	0,078	0,106	0,058
Mar 00	0,123	0,142	0,124
Apr 00	0,079	0,089	0,062
May 00	0,082	0,119	0,041

Jun 00	0,052	0,081	0,026
Jul 00	0,050	0,094	0,076
Aug 00	0,067	0,089	0,052
Sep 00	0,054	0,087	0,041
Oct 00	0,056	0,066	0,053
Nov 00	0,087	0,108	0,057
Dec 00	0,066	0,092	0,076
Jan 01	0,023	0,045	0,013
Feb 01	0,114	0,154	0,060
Mar 01	0,153	0,232	0,073
Apr 01	0,110	0,152	0,073
May 01	0,038	0,095	0,035
Jun 01	0,057	0,115	0,018
Jul 01	0,046	0,053	0,067
Aug 01	0,041	0,034	0,059
Sep 01	0,062	0,047	0,086
Oct 01	0,032	0,021	0,051
Nov 01	0,042	0,034	0,051
Dec 01	0,069	0,110	0,010
Jan 02	0,005	0,040	0,011
Feb 02	0,123	0,190	0,065
Mar 02	0,169	0,215	0,141
Apr 02	0,097	0,151	0,060
May 02	0,104	0,043	0,166
Jun 02	0,086	0,078	0,074
Jul 02	0,040	0,057	0,015
Aug 02	0,074	0,097	0,054
Sep 02	0,065	0,099	0,045
Oct 02	0,073	0,088	0,071
Nov 02	0,030	0,064	0,053
Dec 02	0,059	0,074	0,061
Jan 03	0,034	0,067	0,026
Feb 03	0,081	0,162	0,026
Mar 03	0,119	0,196	0,065
Apr 03	0,073	0,107	0,047
May 03	0,040	0,115	0,032
Jun 03	0,063	0,064	0,080
Jul 03	0,059	0,062	0,069
Aug 03	0,041	0,017	0,065
Sep 03	0,079	0,133	0,051
Oct 03	0,035	0,046	0,048
Nov 03	0,047	0,005	0,076
Dec 03	0,010	0,017	0,028
Jan 04	0,001	0,082	0,060

Jun 00	0,072	0,095	0,054
Jul 00	0,050	0,066	0,048
Aug 00	0,066	0,122	0,039
Sep 00	0,064	0,072	0,030
Oct 00	0,051	0,070	0,040
Nov 00	0,076	0,111	0,042
Dec 00	0,077	0,081	0,079
Jan 01	0,019	0,063	0,028
Feb 01	0,084	0,105	0,054
Mar 01	0,179	0,267	0,101
Apr 01	0,131	0,183	0,066
May 01	0,073	0,136	0,007
Jun 01	0,029	0,082	0,047
Jul 01	0,032	0,045	0,043
Aug 01	0,040	0,042	0,036
Sep 01	0,056	0,054	0,085
Oct 01	0,024	0,058	0,047
Nov 01	0,044	0,045	0,045
Dec 01	0,089	0,133	0,043
Jan 02	0,082	0,101	0,081
Feb 02	0,132	0,132	0,113
Mar 02	0,185	0,257	0,136
Apr 02	0,205	0,241	0,187
May 02	0,106	0,122	0,087
Jun 02	0,116	0,042	0,174
Jul 02	0,073	0,101	0,042
Aug 02	0,067	0,047	0,087
Sep 02	0,048	0,106	0,028
Oct 02	0,063	0,076	0,053
Nov 02	0,048	0,058	0,049
Dec 02	0,023	0,084	0,027
Jan 03	0,030	0,018	0,025
Feb 03	0,084	0,178	0,033
Mar 03	0,119	0,192	0,056
Apr 03	0,126	0,191	0,070
May 03	0,078	0,135	0,044
Jun 03	0,079	0,067	0,091
Jul 03	0,055	0,081	0,059
Aug 03	0,066	0,084	0,059
Sep 03	0,050	0,036	0,056
Oct 03	0,055	0,041	0,048
Nov 03	0,040	0,039	0,086
Dec 03	0,027	0,037	0,047
Jan 04	0,033	0,035	0,081

Feb 04	0,066	0,133	0,032	Feb 04	0,058	0,122	0,037
Mar 04	0,069	0,075	0,073	Mar 04	0,112	0,127	0,108
Apr 04	0,051	0,061	0,039	Apr 04	0,100	0,153	0,082
May 04	0,052	0,082	0,067	May 04	0,048	0,027	0,056
Jun 04	0,103	0,082	0,128	Jun 04	0,062	0,032	0,095
Jul 04	0,063	0,023	0,102	Jul 04	0,078	0,027	0,128
Aug 04	0,112	0,109	0,131	Aug 04	0,084	0,013	0,113
Sep 04	0,037	0,094	0,037	Sep 04	0,056	0,132	0,035
Oct 04	0,036	0,057	0,089	Oct 04	0,058	0,061	0,034
Nov 04	0,020	0,035	0,057	Nov 04	0,032	0,066	0,052
Dec 04	0,044	0,010	0,074	Dec 04	0,030	0,023	0,068
Jan 05	0,097	0,146	0,053	Jan 05	0,090	0,105	0,076
Feb 05	0,022	0,041	0,003	Feb 05	0,023	0,027	0,063
Mar 05	0,030	0,098	0,026	Mar 05	0,015	0,014	0,026
Apr 05	0,032	0,009	0,043	Apr 05	0,031	0,083	0,028
May 05	0,037	0,085	0,051	May 05	0,021	0,055	0,020
Jun 05	0,041	0,049	0,022	Jun 05	0,089	0,090	0,085
Jul 05	0,074	0,046	0,117	Jul 05	0,063	0,079	0,079
Aug 05	0,027	0,059	0,032	Aug 05	0,016	0,017	0,037
Sep 05	0,031	0,058	0,060	Sep 05	0,017	0,058	0,016
Oct 05	0,103	0,095	0,098	Oct 05	0,035	0,057	0,019
Nov 05	0,020	0,037	0,033	Nov 05	0,057	0,046	0,082
Dec 05	0,026	0,091	0,028	Dec 05	0,014	0,052	0,019
Jan 06	0,023	0,105	0,065	Jan 06	0,008	0,079	0,065
Feb 06	0,096	0,158	0,114	Feb 06	0,075	0,156	0,089
Mar 06	0,065	0,165	0,074	Mar 06	0,091	0,141	0,114
Apr 06	0,074	0,040	0,096	Apr 06	0,103	0,162	0,140
May 06	0,070	0,066	0,082	May 06	0,084	0,101	0,079
Jun 06	0,044	0,108	0,077	Jun 06	0,077	0,113	0,130
Jul 06	0,067	0,024	0,081	Jul 06	0,045	0,027	0,067
Aug 06	0,035	0,026	0,067	Aug 06	0,031	0,047	0,031
Sep 06	0,069	0,056	0,075	Sep 06	0,043	0,037	0,059
Oct 06	0,030	0,044	0,030	Oct 06	0,024	0,045	0,036
Nov 06	0,012	0,031	0,030	Nov 06	0,026	0,044	0,014
Dec 06	0,024	0,035	0,028	Dec 06	0,036	0,032	0,040
Jan 07	0,073	0,055	0,126	Jan 07	0,034	0,021	0,056
Feb 07	0,103	0,116	0,099	Feb 07	0,112	0,103	0,150
Mar 07	0,041	0,089	0,009	Mar 07	0,070	0,116	0,063
Apr 07	0,050	0,020	0,075	Apr 07	0,061	0,043	0,057
May 07	0,048	0,117	0,040	May 07	0,065	0,059	0,067
Jun 07	0,061	0,018	0,086	Jun 07	0,058	0,070	0,059
Jul 07	0,095	0,069	0,136	Jul 07	0,071	0,023	0,117
Aug 07	0,077	0,033	0,097	Aug 07	0,063	0,065	0,072
Sep 07	0,066	0,093	0,065	Sep 07	0,085	0,032	0,116

Oct 07	0,083	0,142	0,050
Nov 07	0,033	0,012	0,034
Dec 07	0,065	0,094	0,070
Jan 08	0,053	0,104	0,059
Feb 08	0,027	0,053	0,052
Mar 08	0,113	0,062	0,117
Apr 08	0,030	0,022	0,075
May 08	0,092	0,069	0,107
Jun 08	0,084	0,049	0,099
Jul 08	0,080	0,090	0,093
Aug 08	0,031	0,108	0,052
Sep 08	0,066	0,062	0,076
Oct 08	0,047	0,115	0,030
Nov 08	0,077	0,087	0,072
Dec 08	0,140	0,090	0,156
Jan 09	0,141	0,068	0,163
Feb 09	0,016	0,187	0,061
Mar 09	0,009	0,053	0,018
Apr 09	0,079	0,055	0,091
May 09	0,080	0,060	0,097
Jun 09	0,099	0,065	0,110
Jul 09	0,110	0,202	0,091
Aug 09	0,054	0,025	0,071
Sep 09	0,061	0,020	0,073
Oct 09	0,053	0,114	0,061
Nov 09	0,048	0,126	0,031
Dec 09	0,021	0,061	0,021
Jan 10	0,055	0,007	0,070
Feb 10	0,026	0,030	0,030
Mar 10	0,059	0,139	0,065
Apr 10	0,076	0,014	0,090

Oct 07	0,058	0,077	0,055
Nov 07	0,044	0,139	0,021
Dec 07	0,075	0,064	0,118
Jan 08	0,079	0,136	0,051
Feb 08	0,040	0,070	0,052
Mar 08	0,094	0,051	0,102
Apr 08	0,050	0,135	0,029
May 08	0,100	0,042	0,151
Jun 08	0,066	0,088	0,082
Jul 08	0,098	0,200	0,099
Aug 08	0,057	0,039	0,081
Sep 08	0,055	0,076	0,080
Oct 08	0,081	0,187	0,059
Nov 08	0,080	0,036	0,081
Dec 08	0,130	0,104	0,138
Jan 09	0,213	0,202	0,223
Feb 09	0,111	0,170	0,165
Mar 09	0,051	0,040	0,067
Apr 09	0,095	0,115	0,097
May 09	0,088	0,034	0,114
Jun 09	0,086	0,102	0,106
Jul 09	0,056	0,077	0,076
Aug 09	0,057	0,039	0,069
Sep 09	0,072	0,048	0,074
Oct 09	0,066	0,064	0,092
Nov 09	0,032	0,133	0,050
Dec 09	0,025	0,106	0,021
Jan 10	0,045	0,040	0,065
Feb 10	0,038	0,025	0,041
Mar 10	0,050	0,128	0,064
Apr 10	0,086	0,079	0,099

Table A15. Dissimilarity of structure for general business conditions (all firms, public sector, and private sector): 3-month forecast horizon

Table A16. Dissimilarity of structure for general business conditions (all firms, public sector, and private sector): 4-month forecast horizon

Table A15

	all	public	private
Jun 97	N/A	N/A	N/A
Jul 97	0,117	0,136	0,116
Aug 97	0,147	0,188	0,121
Sep 97	0,125	0,129	0,136
Oct 97	0,222	0,222	0,214
Nov 97	0,160	0,165	0,166
Dec 97	0,112	0,130	0,108
Jan 98	0,115	0,133	0,140
Feb 98	0,133	0,158	0,142
Mar 98	0,077	0,083	0,077
Apr 98	0,084	0,108	0,078
May 98	0,081	0,124	0,056
Jun 98	0,069	0,111	0,047
Jul 98	0,020	0,034	0,040
Aug 98	0,066	0,095	0,107
Sep 98	0,094	0,110	0,058
Oct 98	0,089	0,122	0,087
Nov 98	0,161	0,167	0,174
Dec 98	0,223	0,273	0,202
Jan 99	0,268	0,274	0,276
Feb 99	0,335	0,335	0,344
Mar 99	0,329	0,361	0,302
Apr 99	0,103	0,101	0,106
May 99	0,086	0,068	0,125
Jun 99	0,147	0,120	0,173
Jul 99	0,083	0,118	0,045
Aug 99	0,191	0,237	0,140
Sep 99	0,208	0,186	0,185
Oct 99	0,113	0,125	0,093
Nov 99	0,043	0,031	0,056
Dec 99	0,045	0,087	0,002
Jan 00	0,019	0,056	0,028
Feb 00	0,074	0,086	0,050
Mar 00	0,058	0,055	0,056
Apr 00	0,112	0,123	0,118
May 00	0,147	0,167	0,120

Table A16

	all	public	private
Jun 97	N/A	N/A	N/A
Jul 97	N/A	N/A	N/A
Aug 97	0,144	0,156	0,138
Sep 97	0,088	0,139	0,059
Oct 97	0,125	0,145	0,140
Nov 97	0,232	0,208	0,237
Dec 97	0,146	0,182	0,124
Jan 98	0,121	0,122	0,142
Feb 98	0,122	0,125	0,127
Mar 98	0,156	0,160	0,166
Apr 98	0,099	0,119	0,103
May 98	0,062	0,080	0,056
Jun 98	0,089	0,126	0,083
Jul 98	0,040	0,076	0,051
Aug 98	0,033	0,051	0,053
Sep 98	0,110	0,101	0,115
Oct 98	0,075	0,121	0,039
Nov 98	0,154	0,175	0,151
Dec 98	0,270	0,275	0,285
Jan 99	0,297	0,345	0,287
Feb 99	0,417	0,435	0,400
Mar 99	0,368	0,349	0,378
Apr 99	0,156	0,203	0,121
May 99	0,046	0,049	0,041
Jun 99	0,140	0,127	0,165
Jul 99	0,141	0,164	0,127
Aug 99	0,179	0,219	0,142
Sep 99	0,168	0,180	0,128
Oct 99	0,159	0,188	0,102
Nov 99	0,142	0,128	0,149
Dec 99	0,039	0,056	0,028
Jan 00	0,108	0,130	0,077
Feb 00	0,021	0,046	0,038
Mar 00	0,039	0,055	0,033
Apr 00	0,057	0,068	0,061
May 00	0,126	0,148	0,117

Jun 00	0,116	0,108	0,143	Jun 00	0,164	0,131	0,193
Jul 00	0,021	0,024	0,028	Jul 00	0,074	0,085	0,087
Aug 00	0,062	0,046	0,087	Aug 00	0,066	0,065	0,078
Sep 00	0,053	0,074	0,052	Sep 00	0,081	0,043	0,121
Oct 00	0,192	0,188	0,215	Oct 00	0,092	0,125	0,065
Nov 00	0,123	0,127	0,140	Nov 00	0,149	0,122	0,199
Dec 00	0,116	0,140	0,110	Dec 00	0,195	0,237	0,186
Jan 01	0,008	0,040	0,038	Jan 01	0,038	0,047	0,054
Feb 01	0,120	0,130	0,138	Feb 01	0,126	0,152	0,113
Mar 01	0,155	0,130	0,170	Mar 01	0,187	0,180	0,213
Apr 01	0,238	0,220	0,293	Apr 01	0,145	0,123	0,183
May 01	0,179	0,172	0,171	May 01	0,261	0,233	0,299
Jun 01	0,182	0,212	0,145	Jun 01	0,233	0,264	0,181
Jul 01	0,224	0,255	0,174	Jul 01	0,223	0,253	0,187
Aug 01	0,247	0,294	0,193	Aug 01	0,256	0,303	0,195
Sep 01	0,089	0,097	0,091	Sep 01	0,163	0,191	0,147
Oct 01	0,082	0,078	0,084	Oct 01	0,071	0,068	0,073
Nov 01	0,028	0,055	0,026	Nov 01	0,074	0,041	0,073
Dec 01	0,105	0,130	0,070	Dec 01	0,039	0,039	0,039
Jan 02	0,147	0,127	0,145	Jan 02	0,074	0,064	0,069
Feb 02	0,064	0,089	0,054	Feb 02	0,086	0,101	0,057
Mar 02	0,081	0,021	0,115	Mar 02	0,138	0,103	0,168
Apr 02	0,100	0,082	0,104	Apr 02	0,031	0,088	0,025
May 02	0,054	0,062	0,064	May 02	0,063	0,085	0,061
Jun 02	0,101	0,085	0,103	Jun 02	0,047	0,047	0,071
Jul 02	0,079	0,111	0,056	Jul 02	0,120	0,131	0,101
Aug 02	0,066	0,057	0,072	Aug 02	0,095	0,099	0,104
Sep 02	0,144	0,201	0,100	Sep 02	0,132	0,168	0,114
Oct 02	0,109	0,117	0,098	Oct 02	0,121	0,165	0,097
Nov 02	0,100	0,127	0,097	Nov 02	0,149	0,152	0,150
Dec 02	0,063	0,044	0,073	Dec 02	0,044	0,083	0,030
Jan 03	0,069	0,081	0,094	Jan 03	0,097	0,099	0,084
Feb 03	0,127	0,076	0,188	Feb 03	0,095	0,086	0,086
Mar 03	0,223	0,130	0,297	Mar 03	0,239	0,116	0,348
Apr 03	0,105	0,102	0,143	Apr 03	0,094	0,070	0,135
May 03	0,081	0,075	0,073	May 03	0,091	0,108	0,096
Jun 03	0,112	0,100	0,124	Jun 03	0,060	0,071	0,047
Jul 03	0,102	0,070	0,130	Jul 03	0,170	0,133	0,197
Aug 03	0,067	0,040	0,085	Aug 03	0,123	0,079	0,149
Sep 03	0,067	0,045	0,080	Sep 03	0,073	0,040	0,097
Oct 03	0,066	0,067	0,057	Oct 03	0,041	0,033	0,031
Nov 03	0,075	0,083	0,051	Nov 03	0,060	0,059	0,051
Dec 03	0,045	0,083	0,081	Dec 03	0,051	0,035	0,053
Jan 04	0,057	0,019	0,089	Jan 04	0,061	0,049	0,084

Feb 04	0,040	0,086	0,045	Feb 04	0,033	0,076	0,021
Mar 04	0,040	0,005	0,062	Mar 04	0,033	0,026	0,063
Apr 04	0,088	0,119	0,082	Apr 04	0,108	0,090	0,127
May 04	0,119	0,129	0,139	May 04	0,085	0,110	0,087
Jun 04	0,113	0,093	0,139	Jun 04	0,112	0,094	0,144
Jul 04	0,059	0,081	0,050	Jul 04	0,124	0,076	0,157
Aug 04	0,086	0,076	0,104	Aug 04	0,086	0,111	0,062
Sep 04	0,055	0,079	0,049	Sep 04	0,093	0,095	0,114
Oct 04	0,059	0,085	0,047	Oct 04	0,077	0,133	0,032
Nov 04	0,055	0,127	0,004	Nov 04	0,043	0,042	0,034
Dec 04	0,050	0,061	0,043	Dec 04	0,078	0,144	0,055
Jan 05	0,069	0,061	0,077	Jan 05	0,069	0,099	0,055
Feb 05	0,078	0,078	0,088	Feb 05	0,095	0,078	0,108
Mar 05	0,118	0,109	0,143	Mar 05	0,131	0,117	0,143
Apr 05	0,098	0,113	0,121	Apr 05	0,085	0,157	0,117
May 05	0,052	0,051	0,042	May 05	0,092	0,075	0,109
Jun 05	0,061	0,103	0,043	Jun 05	0,081	0,069	0,082
Jul 05	0,054	0,088	0,069	Jul 05	0,037	0,041	0,070
Aug 05	0,072	0,146	0,040	Aug 05	0,077	0,124	0,111
Sep 05	0,069	0,068	0,072	Sep 05	0,029	0,101	0,009
Oct 05	0,057	0,088	0,044	Oct 05	0,093	0,125	0,106
Nov 05	0,040	0,088	0,021	Nov 05	0,056	0,081	0,022
Dec 05	0,073	0,105	0,061	Dec 05	0,043	0,107	0,020
Jan 06	0,026	0,031	0,052	Jan 06	0,025	0,046	0,027
Feb 06	0,022	0,034	0,046	Feb 06	0,017	0,014	0,044
Mar 06	0,071	0,073	0,087	Mar 06	0,067	0,084	0,077
Apr 06	0,028	0,103	0,028	Apr 06	0,003	0,073	0,043
May 06	0,054	0,085	0,064	May 06	0,063	0,112	0,061
Jun 06	0,113	0,079	0,133	Jun 06	0,063	0,063	0,073
Jul 06	0,106	0,024	0,159	Jul 06	0,130	0,075	0,171
Aug 06	0,067	0,028	0,089	Aug 06	0,108	0,038	0,155
Sep 06	0,042	0,061	0,048	Sep 06	0,074	0,073	0,078
Oct 06	0,079	0,045	0,096	Oct 06	0,056	0,051	0,063
Nov 06	0,038	0,060	0,028	Nov 06	0,067	0,048	0,080
Dec 06	0,043	0,037	0,055	Dec 06	0,046	0,070	0,043
Jan 07	0,060	0,160	0,035	Jan 07	0,036	0,073	0,051
Feb 07	0,075	0,127	0,044	Feb 07	0,099	0,175	0,054
Mar 07	0,061	0,069	0,056	Mar 07	0,065	0,063	0,069
Apr 07	0,106	0,167	0,074	Apr 07	0,099	0,149	0,079
May 07	0,124	0,152	0,114	May 07	0,147	0,161	0,133
Jun 07	0,048	0,068	0,038	Jun 07	0,074	0,114	0,064
Jul 07	0,074	0,119	0,059	Jul 07	0,017	0,063	0,027
Aug 07	0,073	0,038	0,099	Aug 07	0,077	0,101	0,069
Sep 07	0,023	0,060	0,057	Sep 07	0,095	0,049	0,131

Oct 07	0,042	0,045	0,051	Oct 07	0,023	0,025	0,027
Nov 07	0,058	0,171	0,020	Nov 07	0,032	0,078	0,015
Dec 07	0,041	0,036	0,056	Dec 07	0,035	0,089	0,009
Jan 08	0,116	0,136	0,119	Jan 08	0,031	0,069	0,021
Feb 08	0,079	0,160	0,037	Feb 08	0,137	0,213	0,129
Mar 08	0,049	0,038	0,009	Mar 08	0,035	0,020	0,035
Apr 08	0,036	0,026	0,083	Apr 08	0,075	0,064	0,103
May 08	0,071	0,169	0,098	May 08	0,064	0,136	0,095
Jun 08	0,186	0,206	0,190	Jun 08	0,085	0,197	0,115
Jul 08	0,121	0,143	0,118	Jul 08	0,186	0,196	0,185
Aug 08	0,085	0,105	0,093	Aug 08	0,137	0,113	0,146
Sep 08	0,076	0,172	0,062	Sep 08	0,100	0,141	0,098
Oct 08	0,224	0,360	0,192	Oct 08	0,251	0,327	0,236
Nov 08	0,269	0,354	0,244	Nov 08	0,255	0,323	0,236
Dec 08	0,331	0,223	0,351	Dec 08	0,374	0,334	0,373
Jan 09	0,230	0,156	0,249	Jan 09	0,418	0,460	0,405
Feb 09	0,216	0,170	0,229	Feb 09	0,345	0,131	0,394
Mar 09	0,135	0,233	0,113	Mar 09	0,168	0,211	0,159
Apr 09	0,114	0,104	0,112	Apr 09	0,090	0,030	0,101
May 09	0,185	0,229	0,173	May 09	0,118	0,073	0,125
Jun 09	0,103	0,122	0,102	Jun 09	0,181	0,231	0,171
Jul 09	0,079	0,162	0,100	Jul 09	0,139	0,161	0,134
Aug 09	0,151	0,101	0,150	Aug 09	0,130	0,165	0,117
Sep 09	0,198	0,115	0,216	Sep 09	0,191	0,212	0,187
Oct 09	0,126	0,048	0,138	Oct 09	0,179	0,037	0,208
Nov 09	0,058	0,101	0,058	Nov 09	0,156	0,060	0,171
Dec 09	0,038	0,070	0,037	Dec 09	0,053	0,114	0,045
Jan 10	0,115	0,094	0,113	Jan 10	0,072	0,030	0,079
Feb 10	0,067	0,099	0,058	Feb 10	0,085	0,164	0,069
Mar 10	0,073	0,112	0,065	Mar 10	0,062	0,129	0,051
Apr 10	0,098	0,102	0,101	Apr 10	0,087	0,049	0,111

Undefined values (division by zero or log of zero) are marked by empty cells.

Source: own calculations on the basis of RIED data