ONLINE APPENDIX FOR INFLATION EXPECTATIONS AND MISALLOCATION OF Resources: Evidence from Italy^{*}

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Appendix A. Robustness checks

Appendix Figure 1. Robustness checks to Baseline Estimates.



Notes: This figure shows the estimates of the coefficient β_0^h (see notes in Table 1) for alternative data treatments (no interpolation and trimming at bottom and top 5 or 3 percent), use of inflation expectations at different horizons (6-month and 24-month ahead), use of rental-based measurement of capital expenditure and use of industry-level cost shares. The baseline estimates are shown in the top left panel. Circles represent the point estimates while the whiskers the 90 percent confidence interval.

Appendix B: Derivations

We consider the textbook New Keynesian model (e.g., Gali 2015) to assess how the dispersion of inflation expectations should be related to the misallocation of resources.

We assume that the demand function for a variety produced by firm $i \in [0,1]$ is given by $Y_{it} = Y_t \left(\frac{P_{it}}{\bar{P}_t}\right)^{-\sigma}$

where *i*, *t* index firms and time, Y_{it} is output, P_{it} is the price of variety *i*, \overline{P}_t is the price level. The production function is $Y_{it} = Z_t K_{it}^{\alpha} L_{it}^{1-\alpha}$ where Z_t is the level of technology that is common across firms, L_{it} is the labor input, K_{it} is the capital input. Workers are freely mobile across firms so that the wage is the same across firms. We assume that capital is a quasi-fixed factor that is set to the optimal "steady-state" level \overline{K} . If follows that the revenue (and value added since there are no intermediate inputs) for firm *i* is given:

$$\begin{aligned} R_{it} &= P_{it}Y_{it} = P_{t}Y_{t}^{1/\sigma}Y_{it}^{1-1/\sigma} = P_{t}Y_{t}^{\frac{1}{\sigma}} (Z_{t}K_{it}^{\alpha}L_{it}^{1-\alpha})^{1-1/\sigma} = P_{t}Y_{t}^{\frac{1}{\sigma}}Z_{t}^{1-1/\sigma}K_{it}^{\alpha(1-1/\sigma)}L_{it}^{(1-\alpha)(1-1/\sigma)} \\ &= X_{t}K_{it}^{\alpha(1-1/\sigma)}L_{it}^{(1-\alpha)(1-1/\sigma)} \end{aligned}$$

where $X_t \equiv P_t Y_t^{\frac{1}{\sigma}} Z_t^{1-1/\sigma}$ is common across firms. Marginal revenue products for firm *i* are given by

$$MRPL_{it} \equiv \frac{\partial P_{it}Y_{it}}{\partial L_{it}} = X_t (1-\alpha) \left(1-\frac{1}{\sigma}\right) \overline{K}^{\alpha(1-1/\sigma)} L_{it}^{(1-\alpha)(1-1/\sigma)-1},$$
$$MRPK_{it} \equiv \frac{\partial P_{it}Y_{it}}{\partial K_{it}} = X_t \alpha \left(1-\frac{1}{\sigma}\right) \overline{K}^{\alpha(1-1/\sigma)-1} L_{it}^{(1-\alpha)(1-1/\sigma)}.$$

In what follows, we will use lower-case letters to denote logs of the corresponding variables, e.g., $l_{it} = \log(L_{it})$. The cross-sectional dispersion of log marginal revenue product is given by

$$var_{i}(mrpl_{it}) = \left[(1-\alpha)\left(1-\frac{1}{\sigma}\right) - 1 \right]^{2} var_{i}(l_{it})$$
$$var_{i}(mrpk_{it}) = \left[(1-\alpha)\left(1-\frac{1}{\sigma}\right) \right]^{2} var_{i}(l_{it}).$$

Note that becasue we treat capital as a quasi-fixed factor,

$$L_{it} = Z_t^{-\frac{1}{1-\alpha}} Y_{it}^{\frac{1}{1-\alpha}} \overline{K}_{1-\alpha}^{\frac{\alpha}{1-\alpha}} = Z_t^{-\frac{1}{1-\alpha}} \left(Y_t \left(\frac{P_{it}}{\overline{P}_t} \right)^{-\sigma} \right)^{\frac{1}{1-\alpha}} \overline{K}_{1-\alpha}^{\frac{\alpha}{1-\alpha}} = Z_t^{-\frac{1}{1-\alpha}} Y_t^{\frac{1}{1-\alpha}} P_t^{\frac{\sigma}{1-\alpha}} P_{it}^{\frac{\sigma}{1-\alpha}} \overline{K}_{1-\alpha}^{\frac{\alpha}{1-\alpha}} = Q_t P_{it}^{\frac{-\sigma}{1-\alpha}} \overline{K}_{1-\alpha}^{\frac{\sigma}{1-\alpha}} = Q_t P_{it}^{\frac{\sigma}{1-\alpha}} \overline{K}_{1-\alpha}^{\frac{\sigma}{1-\alpha}} = Q_t P_t^{\frac{\sigma}{1-\alpha}} = Q_t P_t^{\frac{1$$

where $Q_t \equiv Z_t^{-\frac{1}{1-\alpha}} Y_t^{\frac{1}{1-\alpha}} P_t^{\frac{\sigma}{1-\alpha}} \overline{K}_{1-\alpha}^{\frac{\sigma}{1-\alpha}}$ is common across firms. It follows that the cross-sectional dispersion of labor

input is related to the cross-sectional dispersion of prices
$$var_i(l_{it}) = \left(\frac{\sigma}{1-\alpha}\right)^2 var_i(p_{it})$$
 and hence
 $var_i(mrpl_{it}) = \left[(1-\alpha)\left(1-\frac{1}{\sigma}\right)-1\right]^2 \left(\frac{\sigma}{1-\alpha}\right)^2 var_i(p_{it})$
 $var_i(mrpk_{it}) = \left[(1-\alpha)\left(1-\frac{1}{\sigma}\right)\right]^2 \left(\frac{\sigma}{1-\alpha}\right)^2 var_i(p_{it})$

As we discuss in the paper, it is also useful to compute the cross-sectional dispersion in the difference of marginal revenue products:

$$var_i(mrpk_{it} - mrpl_{it}) = var_i(l_{it}) = \left(\frac{\sigma}{1 - \alpha}\right)^2 var_i(p_{it}).$$

To make further progress, we need to make assumptions about how firms set prices. We posit that firms use Calvo pricing with the probability of price adjustment equal to $1 - \lambda$.

From Werning (2022, p. 11), we know that the log approximation for the optimal reset price for the Calvo pricing is given by:

$$p_{it}^* - \bar{p}_{t-1} = \frac{1}{1 - \beta \lambda} \pi_{it}^e + a_{it}$$

where β is the discount factor, $1 - \lambda$ is the probability of price resets, \bar{p}_t is the average price (i.e., $\bar{p}_t = E_i(p_{it})$ which gives the price level), a_t collects terms that do not depend on inflation expectations (e.g., future real marginal costs). Note that this expression does not require firms resetting their prices to have the same expectations but each firms' inflation expectations is assumed to be constant across horizons.

In the next step, we relate prices dispersion to the dispersion of inflation expectations and other factors. Using the basic properties of Calvo pricing, we find

$$\begin{aligned} var_{i}(p_{it}) &\equiv \Delta_{t} = var_{i}(p_{it} - \bar{p}_{t-1}) = E_{i}\{p_{it} - \bar{p}_{t-1}\}^{2} - [E_{i}\{p_{it} - \bar{p}_{t-1}\}]^{2} \\ &= \lambda E_{i}\{p_{i,t-1} - \bar{p}_{t-1}\}^{2} + (1 - \lambda)E_{i}\{p_{it}^{*} - \bar{p}_{t-1}\}^{2} - [\bar{p}_{t} - \bar{p}_{t-1}]^{2} = \\ &= \lambda \Delta_{t-1} + (1 - \lambda)E_{i}\left\{\frac{1}{1 - \beta\lambda}\pi_{it}^{e} + a_{it}\right\}^{2} - [\bar{p}_{t} - \bar{p}_{t-1}]^{2} = \\ &= \lambda \Delta_{t-1} + (1 - \lambda)E_{i}\left\{\frac{1}{1 - \beta\lambda}(\pi_{it}^{e} - \bar{\pi}_{t}^{e}) + \frac{1}{1 - \beta\lambda}\bar{\pi}_{t}^{e} + a_{it}\right\}^{2} - [\bar{p}_{t} - \bar{p}_{t-1}]^{2} \\ &= \lambda \Delta_{t-1} + (1 - \lambda)\left(\frac{1}{1 - \beta\lambda}\right)^{2}var_{i}(\pi_{it}^{e}) + (1 - \lambda)E_{i}\left\{\frac{1}{1 - \beta\lambda}\bar{\pi}_{t}^{e} + a_{it}\right\}^{2} \\ &+ 2\frac{1 - \lambda}{1 - \beta\lambda}E_{i}\left\{(\pi_{it}^{e} - \bar{\pi}_{t}^{e})\left(\frac{1}{1 - \beta\lambda}\bar{\pi}_{t}^{e} + a_{it}\right)\right\} - [\bar{p}_{t} - \bar{p}_{t-1}]^{2} \end{aligned}$$

To simplify this expression, we note that by definition, $\bar{\pi}_t \equiv \bar{p}_t - \bar{p}_{t-1}$ and that

$$E_{i}\left\{\left(\pi_{it}^{e} - \bar{\pi}_{t}^{e}\right)\left(\frac{1}{1 - \beta\lambda}\,\bar{\pi}_{t}^{e} + a_{it}\right)\right\} = E_{i}\left\{\left(\pi_{it}^{e} - \bar{\pi}_{t}^{e}\right)\left(\frac{1}{1 - \beta\lambda}\,\bar{\pi}_{t}^{e}\right)\right\} + E_{i}\left\{\left(\pi_{it}^{e} - \bar{\pi}_{t}^{e}\right)a_{it}\right\}$$
$$= E_{i}\left\{\left(\pi_{it}^{e} - \bar{\pi}_{t}^{e}\right)(a_{it} - \bar{a}_{t} + \bar{a}_{t})\right\} = E_{i}\left\{\left(\pi_{it}^{e} - \bar{\pi}_{t}^{e}\right)(a_{it} - \bar{a}_{t})\right\} + E_{i}\left\{\left(\pi_{it}^{e} - \bar{\pi}_{t}^{e}\right)\bar{a}_{t}\right\}$$
$$= E_{i}\left\{\left(\pi_{it}^{e} - \bar{\pi}_{t}^{e}\right)(a_{it} - \bar{a}_{t})\right\} = cov_{i}(\pi_{it}^{e}, a_{it})$$

This covariance may be time varying because the source of shocks in the economy can differentially affect expectations about real marginal costs and inflation. It follows that

$$\begin{aligned} var_{i}(p_{it}) &\equiv \Delta_{t} = \lambda \Delta_{t-1} + (1-\lambda) \left(\frac{1}{1-\beta\lambda}\right)^{2} var_{i}(\pi_{it}^{e}) + 2\frac{1-\lambda}{1-\beta\lambda} cov_{i}(\pi_{it}^{e}, a_{it}) \\ &+ (1-\lambda)E_{i} \left\{\frac{1}{1-\beta\lambda} \,\bar{\pi}_{t}^{e} + a_{it}\right\}^{2} - \bar{\pi}_{t}^{2} \\ &= \lambda \Delta_{t-1} + (1-\lambda) \left(\frac{1}{1-\beta\lambda}\right)^{2} var_{i}(\pi_{it}^{e}) + 2\frac{1-\lambda}{1-\beta\lambda} cov_{i}(\pi_{it}^{e}, a_{it}) \\ &+ (1-\lambda)E_{i} \left\{\frac{1}{1-\beta\lambda} \,\bar{\pi}_{t}^{e} + \bar{a}_{t} + a_{it} - \bar{a}_{t}\right\}^{2} - \bar{\pi}_{t}^{2} \\ &= \lambda \Delta_{t-1} + (1-\lambda) \left(\frac{1}{1-\beta\lambda}\right)^{2} var_{i}(\pi_{it}^{e}) + 2\frac{1-\lambda}{1-\beta\lambda} cov_{i}(\pi_{it}^{e}, a_{it}) \\ &+ (1-\lambda) \left\{\frac{1}{1-\beta\lambda} \,\bar{\pi}_{t}^{e} + \bar{a}_{t}\right\}^{2} + (1-\lambda) var_{i}(a_{it}) - \bar{\pi}_{t}^{2} \end{aligned}$$

Note that this expression holds for any group of firms. That is,

$$\begin{split} \Delta_{t}^{control} &= \lambda \Delta_{t-1}^{control} + (1-\lambda) \left(\frac{1}{1-\beta\lambda}\right)^{2} var_{i}^{control}(\pi_{it}^{e}) + 2\frac{1-\lambda}{1-\beta\lambda} cov_{i}^{control}(\pi_{it}^{e}, a_{it}) \\ &+ (1-\lambda) \left\{\frac{1}{1-\beta\lambda} \,\bar{\pi}_{t}^{control,e} + \bar{a}_{t}^{control}\right\}^{2} + (1-\lambda) var_{i}^{control}(a_{it}) - \bar{\pi}_{t}^{control,2} \\ \Delta_{t}^{treat} &= \lambda \Delta_{t-1}^{treat} + (1-\lambda) \left(\frac{1}{1-\beta\lambda}\right)^{2} var_{i}^{treat}(\pi_{it}^{e}) + 2\frac{1-\lambda}{1-\beta\lambda} cov_{i}^{treat}(\pi_{it}^{e}, a_{it}) \\ &+ (1-\lambda) \left\{\frac{1}{1-\beta\lambda} \,\bar{\pi}_{t}^{treat,e} + \bar{a}_{t}^{treat}\right\}^{2} + (1-\lambda) var_{i}^{treat}(a_{it}) - \bar{\pi}_{t}^{treat,2} \end{split}$$

Hence,

 $\Delta_t^{treat} - \Delta_t^{control}$

$$= \lambda \left(\Delta_{t-1}^{treat} - \Delta_{t-1}^{control} \right) + (1 - \lambda) \left(\frac{1}{1 - \beta \lambda} \right)^2 \left\{ var_i^{treat}(\pi_{it}^e) - var_i^{control}(\pi_{it}^e) \right\}$$
$$+ 2 \frac{1 - \lambda}{1 - \beta \lambda} \left(cov_i^{treat}(\pi_{it}^e, a_{it}) - cov_i^{control}(\pi_{it}^e, a_{it}) \right)$$
$$+ (1 - \lambda) \left\{ \frac{1}{1 - \beta \lambda} \left(\bar{\pi}_t^{treat, e} - \bar{\pi}_t^{control, e} \right) + (\bar{a}_t^{treat}$$
$$- \bar{a}_t^{control} \right\} \left\{ \frac{1}{1 - \beta \lambda} \left(\bar{\pi}_t^{treat, e} + \bar{\pi}_t^{control, e} \right) + \bar{a}_t^{treat} + \bar{a}_t^{control} \right\}$$
$$+ (1 - \lambda) \left\{ var_i^{treat}(a_{it}) - var_i^{control}(a_{it}) \right\} - \left\{ \bar{\pi}_t^{treat} - \bar{\pi}_t^{control} \right\} \left\{ \bar{\pi}_t^{treat} + \bar{\pi}_t^{control} \right\}$$

If we assume that the control group has expectations close to those of the treatment group on average, then $\bar{\pi}_t^{treat,e} - \bar{\pi}_t^{control,e} \approx 0$ and $\bar{\pi}_t^{treat} - \bar{\pi}_t^{control} \approx 0$ on average so that the terms in red could be small (i.e., could be higher order terms). The term in blue does not include inflation expectations directly but it may be corelated

with expectations and it may be varying over time. The term in green may vary over time if e.g., treatment and control groups have different beliefs about the sources of fluctuations in the economy.

Let $\Xi_t \equiv \Delta_t^{treat} - \Delta_t^{control}$ be the difference in price dispersion between treatment and control groups. Let $\Psi_t \equiv var_i^{treat}(\pi_{it}^e) - var_i^{control}(\pi_{it}^e)$ be the difference in dispersion of inflation expectations between treatment and control groups. Using these definitions, we can re-write the expression above as

$$\Xi_{t} = \lambda \Xi_{t-1} + (1-\lambda) \left(\frac{1}{1-\beta\lambda}\right)^{2} \Psi_{t} + residual$$

where the residual maybe correlated with other variables on the right-hand side, thus underscoring the importance of using exogenous variation in inflation expectations. Because the dispersion of the marginal revenue product is proportional to the dispersion of prices, we have

$$Y_{t} \equiv var_{i}^{treat}(MRPL_{it}) - var_{i}^{control}(MRPL_{it}) = \left[(1-\alpha)\left(1-\frac{1}{\sigma}\right) - 1 \right]^{2} \left(\frac{\sigma}{1-\alpha}\right)^{2} \Xi_{t}$$

and therefore

$$\frac{\partial Y_{t+h}}{\partial \Psi_t} = \left[(1-\alpha) \left(1 - \frac{1}{\sigma} \right) - 1 \right]^2 \left(\frac{\sigma}{1-\alpha} \right)^2 \lambda^h (1-\lambda) \left(\frac{1}{1-\beta\lambda} \right)^2$$

If we work with standard deviations and assume zero dispersion in the steady state (which is the standard result for the case with zero trend inflation), the response of the standard deviation for the marginal revenue product to a unit shock in the standard deviation for inflation expectations is given by

$$\frac{\partial \, std(\log(MRPL_{it}))}{\partial \, std(\pi_{it}^e)} = \sqrt{\left[(1-\alpha)\left(1-\frac{1}{\sigma}\right)-1\right]^2 \left(\frac{\sigma}{1-\alpha}\right)^2 (1-\lambda) \left(\frac{1}{1-\beta\lambda}\right)^2}.$$

Using the same logic we can derive

$$\frac{\partial std(\log(MRPK_{it}))}{\partial std(\pi_{it}^{e})} = \sqrt{\left[(1-\alpha)\left(1-\frac{1}{\sigma}\right)\right]^{2}\left(\frac{\sigma}{1-\alpha}\right)^{2}(1-\lambda)\left(\frac{1}{1-\beta\lambda}\right)^{2}}$$
$$\frac{\partial std(\log(MRPK_{it})-\log(MRPL_{it}))}{\partial std(\pi_{it}^{e})} = \sqrt{\left(\frac{\sigma}{1-\alpha}\right)^{2}(1-\lambda)\left(\frac{1}{1-\beta\lambda}\right)^{2}}.$$

The table below presents the value of this response for various calibrations of the parameters. When elasticity of substitution is low, the production function is closer to be linear in labor (α closer to zero), and the frequency of price changes is high (λ is smaller), the response is weaker. This table suggests that the range of plausible responses likely goes from 3 to 10 which is close to the responses we observe empirically.

	Parameterizations							
_	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Parameters								
α	0.3	0.1	0.3	0.1	0.3	0.3	0.1	
β	0.99	0.99	0.99	0.99	0.99	0.99	0.99	
λ	0.75	0.75	0.75	0.75	0.5	0.5	0.5	
σ	10	10	5	5	10	5	5	
Response								
$std(\log(MRPL_{it}))$	10.3	4.1	6.1	3.0	6.6	4.0	2.0	
$std(\log(MRPK_{it}))$	17.5	17.5	7.8	7.8	11.3	5.0	5.0	
$std(\log(MRPK_{it}) - \log(MRPL_{it}))$	27.7	21.6	13.9	10.8	18.0	9.0	7.0	

Appendix Table B1. Contemporaneous response of the standard deviation for the marginal revenue product to a unit shock in the standard deviation for inflation expectations.

Appendix C: Survey questionnaire

INDUSTRY EXCLUDING CONSTRUCTION AND SERVICES							
Instructions: For percentage changes. indicate the sign in the first box on the left (+ :for increases;: for decreases).							
SEZIONE A - GENERAL INFORMATION							
A1. Number of employees: ADD							
A2. Share of sales revenues coming from exports:							
(1= more than 2/3; 2= Between 1/3 and 2/3; 3=	= Up to :	1/3 and more	than zero; 4	1=Zero) EXF	PORT4		
SECTION B - GENERAL ECONOMIC SITUATION OF T	THE COUN	ITRY				1	
		in Decemberin June 2015? 2016?		une 5?	in June 2017?	June 2018 and June 2020 ?	
B1a. (about 2/3 of the sample) In April consumer price inflation. measured by the 12- month change in the HARMONIZED INDEX OF CONSUM PRICES was -0.1 per cent in Italy and 0.0 per cent the euro area. What do you think it will be in Ital	IER I t in IY	IT6	IT12	. , %	T24 , %	IT48	, %
B1b. (about 1/3 of the sample) What do you think consumer price inflation in Italy. measured by the 12-month change in the HARMONIZED INDEX OF		IT6N	IT12N	IT12N		IT48N	
CONSUMER PRICES. will be							
B2. Compared with 3 months ago. do you consid	ler Italy'	s general ecor	nomic situati	on is? 🗖	Better 🗖 T	he same 🗖	Worse SITGEN
B3. What do you think is the probability of an im	provem	ent in Italy's g	eneral econ	omic situatio	n <u>in the next</u>	3 months?	PROMIG
SECTION C - YOUR FIRM'S BUSINESS CONDITIONS	s1-75 pt		s per cent	roo per (
How do you think business conditions for your on	mnany	will be:					
C1 in the pext 3 months? Much better	Better	The same	Worse	Much wors	SITMP5		
C2 in the next 3 years? Much better Be	tter		Worse	Much worse	SIMP3605		
C2. <u>In the flext 3 years</u> ? If Much better I be				Much worse		- C	
the probability assigned to each one. How do you	think b	points availab pusiness condi	ions for you	e them amoi ir company v	vill be:	le forecasts	according to
SITM3M Better	SITM3A	SITU3M The s	ame SITU3A	SITP3M Wo	orse SITP3A	То	otal
C3. in the next 3 months						1	
C4. in the next 3 years							
						1	0 0
Please indicate whether and with what intensity t	the follow	wing FACTORS	will affect	your firm's	s business in	1 the next 3 r	0 0 months.
Please indicate whether and with what intensity t Factors affecting your firm's business	the follow	wing FACTORS	will affect	your firm's	s business <u>in</u> Inte	1 the next 3 r	o o months.
Please indicate whether and with what intensity t Factors affecting your firm's business <u>In the next 3 months</u>	the follow	wing FACTORS Eff	will affect ect on busine Nil	your firm's	s business in Inte Low	1 the next 3 r ensity (if not Average	0 0 months. nil) High
Please indicate whether and with what intensity to Factors affecting your firm's business <u>In the next 3 months</u> C5. Changes in demand	the follow	wing FACTORS	5 will affect ect on busine Nil 2	s your firm's ess Positive 3	business in Inte	1 the next 3 r ensity (if not a Average 2	0 0 months. nil) High 3
Please indicate whether and with what intensity the Factors affecting your firm's business In the next 3 months C5. Changes in demand DISIT C6. Changes in YOUR PRICES PRSIT C7. AVAILABILITY and the COST OF CREDIT CRSIT	the follow	wing FACTORS Effe Negative 1 1	5 will affect ect on busine Nil 2 2 2	your firm's	s business in Inte Low 1 1 1	1 1 the next 3 r r ensity (if not i r Average 2 2	0 0 months. nil) High 3 3 3
Please indicate whether and with what intensity the Factors affecting your firm's business In the next 3 months C5. Changes in demand DISIT C6. Changes in YOUR PRICES PRSIT C7. AVAILABILITY AND THE COST OF CREDIT CRSIT C7. BIS UNCERTAINTY DUE TO ECONOMIC AND POLITICAL PROPERTY OF THE POLITICAL P	the follow	wing FACTORS <i>Effi Negative</i> 1 1 1 1	6 will affect ect on busine Nil 2 2 2 2	your firm's	business in Interview Low 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 months. nil) High 3 3 3 3
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Please indicate direction and intensity of the following FACTORS as they will affect your firm's selling prices in the next 12 months:								
Factors affecting your firm's prices	Effect on firm's selling prices			Intensity (if not nil)				
in the next 12 months	Downward	Neutral	Upward	Low	Average	High		
D3. TOTAL DEMAND DPR	1	2	3	1	2	3		
D4. RAW MATERIALS PRICES MPPR	1	2	3	1	2	3		
D5. LABOUR COSTS CLPR	1	2	3	1	2	3		
D6. PRICING POLICIES of your firm's main competitors PRPR	1	2	3	1	2	3		
SECTION E - WORKFORCE								
Ed. Manufactoria and a second second in the next Discontine will be a second					Unchanged	Higher		
E1. Four firm's TOTAL NOMBER OF employees in the next S						3		
SECTION F - INVESTMENT								
F1 . What do you expect will be the nominal expenditure on (tangible and intangible) fixed investment in 2015 compared with that in 2014? \Box Much higher \Box A little higher \Box About the same \Box A little lower \Box Much lower \Box Much lower								
F2 . And what do you expect will be the nominal expenditure in the second half of 2015 compared with that in the first half of 2015: Much higher $\Box A$ little higher $\Box A$ bout the same $\Box A$ little lower $\Box Much$ lower [NVSEM]								

NOTE: The responses "much higher" and "much lower" also apply when. in the two periods compared. investments are zero.