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IN EMPLOYMENT ACTIVATION: REFLECTIONS FOR
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EXPERIENCE.**

Paolo Piacentini

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Paolo Piacentini

REDAZIONE:

ASTRIL
Università degli Studi Roma Tre
Via Silvio D'Amico, 77 - 00145 Roma
Tel. 0039-06-57335751; 06-57335723
E-mail: astril@uniroma3.it
<http://host.uniroma3.it/associazioni/astril>

THE INTERACTION OF 'MACRO' AND 'MICRO' FACTORS IN EMPLOYMENT ACTIVATION: REFLECTIONS FOR THEORY, AS INSPIRED BY THE RECENT ITALIAN EXPERIENCE.

Paolo M. Piacentini

Introduction

These reflections are meant at proposing preliminary queries and suggestions in the direction of more comprehensive theoretical framing of the recent trends in the demand for labour, in its quantitative and qualitative evolutions.

The 'Stylized Facts', and the occasional evidence, are drawn from the Italian experience of the more recent period. Although the Italian case appears, in my opinion, as somewhat 'extreme' within the international comparison, for the extensive use of 'contingent' labour contracts and the anomalous value of the cyclical employment/output elasticity, I believe that similar phenomena are shared by other countries although with diverse forms and intensity.

After the deep impact on output and employment of what has been defined as the worst crisis after 'Great Depression', the numbers in employment have recovered everywhere, with diverse intensities. Cases of more prompt success have been, sometimes, associated by conventional policy wisdom to those countries having more promptly enacted suitable 'reforms' of market regulation impacting upon the 'rigidities' in labour use (e.g. Germany in the first instance and, more recently, also Spain being cited as cases of 'success story'). Italy might have been a latecomer in this respect; but efforts in this country towards 'flexibilization', in particular by allowing the liberal use of 'short-term' engagement of labour in diverse forms, were in the recent past convincingly pursued and enacted by the successive acts of legislation.

We shall not enter the details and the discussion on this latter point in this occasion¹. We present numbers and compositions for actual trends in the demand for labour, which should be evocative of the impact of ‘structural reforms’. In particular, we comment data, evidencing the extensive use of short-term contracts and the changing composition of employment. One important macroeconomic implication, signaling the increase in the numbers in employment, in front of equal, or even lower, effective input of labour as measured by total hours of work, and the consequent, ‘anomalous’ value of the aggregate employment/output elasticity in the recent cyclical episodes, is also briefly commented.

In our opinion, these factual evidences call for a general reconsideration for the ‘fundamentals’ of the determinants of a short-run demand for labour. This reflection should be actual for the agenda of any sensible researcher, on either side of the traditional divide, between “Classical” and “Keynesian” visions of the working of the economy. In our point of view, as presented ahead, the central point of the Keynesian vision, for which the demand for labour is essentially the ‘derived’ result of a ‘final’ demand activation, is essentially confirmed. However, the relevance of possible ‘substitution’ effects, within the composition of total employment, as encouraged by incentives and (de)regulations, is admitted and discussed. In the final section, we sketch out a proposal, for a simple analytical frame for the representation of choices and options of the employer, in the activation of an employment match. The full implementation of a ‘flexibility paradigm’ , in its ‘extreme’ extension, would approach the use of the labour towards that of a fully “liquid” commodity, comparable to the trades of an asset on the financial market.

Shall the flexibilities imply only substitutions within the composition of the total demand for labour, amongst the available contractual forms, or some ‘net’ effect in terms of additions to the employment activation might be hypothesized? This fundamental question is proposed to the further, and more formalized, analytical effort. In the concluding remarks, we limit at hinting at an intuitive answers.

¹ For a ‘mainstream’ survey, however with valuable data presentation and discussion, see Sestito and Viviano (2016) and Boeri and Garibaldi (2018)

The rise of “Short-jobs”

The most impressive feature of the Italian trend for employment, in the years of moderate cyclical recovery after the trough in 2012-13, is the predominant role of ‘term’ contracts, and other form of ‘contingent’ labour, in the numbers of new jobs. These non-permanent form of work engagement represented in fact , in 2017, about 83% of total new ‘matches’.

Table1

NEW JOB OPENINGS; ITALY	2015	2016	2017
Hirings with:			
• ‘permanent’ contract	2,008,822	1,275,271	1,176,015
• Term contract	3,463,109	3,779,136	4,811,984
• Apprentice contract	177,166	234,659	285,541
• Seasonal contract	598,326	567,358	685,873
• TOTAL	6,247,423	5,856,424	6,959,413
• (source: INPS ‘Osservatorio sul precariato’)			

A joint effort for extraction and merge from available sources of microdata, as pursued by the research teams within the institutions in charge of the collection of administrative records, has allowed to extend to the general public the range of a statistical evidence, about the composition, the duration, etc., for various typologies of contingent work. Particular interest, and social concern, has been raised by the new evidence, upon the wide diffusion of s.c. “Short-jobs”, defined as all forms of work engagement lasting less than three months. Table 2 gives numbers and typologies for these, in the initial (2012) and final (2016) years, as included in the published survey.

Table 2

WORKERS INVOLVED		
	2012	2016
• Term contracts	1.490.699	1.770.313
• Dispatched workers	376.592	485.581
• "Collaborators"	423.038	172.738
• "Professionals" (with VT register)	73.677	102.474
• "Voucher"	365.911	1.770.554
• Other occasional workers	671.708	295.411
• (fonti: INPS, INAIL, ANPAL)		

The contractual typologies reported in the table attempt a translation for the jargon, in current Italian use. While the number of contracts of dependent employment with matches lasting less than three months, holds the prevalent share, we can see that also other 'atypical' forms of labour engagements present significant numbers: e.g. 'dispatched' work for missions intermediated by 'Temporary work' agencies, 'collaborators' in projects, in position of a formally autonomous work, and eventually the use of occasional labour paid through 'Vouchers' (purchasable, in single hour units, by the employer, and cashable by the worker, e.g. at the local tobacconist), etc. This latter form of work has found significant diffusion particularly in the agricultural and the catering sectors. The 'voucher' have in fact represented the minimal standard, for the use of a work admitted as 'legal', since accomplishing the coverage of national insurance against accidents on work to the occasional worker. The choice of employers amongst the diverse typologies of hires has been influenced, in these years, by the frequent changes of legislation and regulation regarding the relative incidence of the social contribution costs associated to them. While referring to specialist surveys for the details, the availability of diverse options for the use of a contingent labour should be here stressed. Work engagements with less than three months duration represented almost the 60% of the total of new job matches as reported in the social security registers; 30% of these concerned young workers with less than 30 years old, but the remaining 70% involved

more mature cohorts of the labour force with a prevalence of males (60%). The rise of a highly flexible and precarious forms of participation to the labour market appears thus a matter of fact in the recent Italian experience.

The historical record and the known relevance of the diffusion of a s.c. 'Black' labour market in this country, should however pose us a preliminary interrogation, whether the recent evidence, also brought by the improvement of statistical information for the 'Short-jobs', might also be the result of the 'surfacing' of situations which, otherwise or in other times, would have remained unreported. The increasingly liberal acknowledgement by legislation, of forms of contingent labour, might certainly have contributed to this result. However, on the other side, the easing of the regulation might also have encouraged the cases of a 'substitution' , of a typical with an atypical work, with displacement effects upon jobs which otherwise would have been established under a more stable clause.

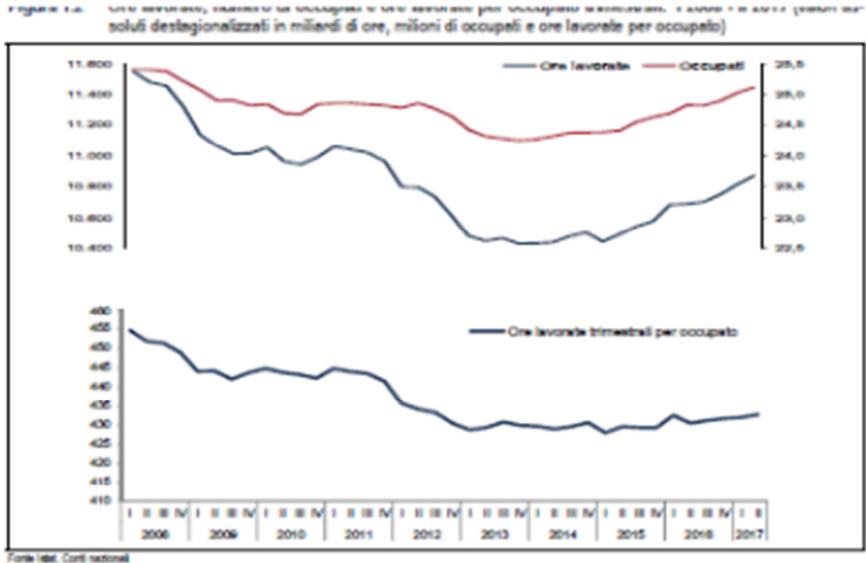
The correct understanding of the social implications of the diffusion of 'short-jobs' might differ, according to the hypotheses upon the prevalence of an 'emersion' vs. a 'substitution' effect. Further investigations, possibly also with extensions to case studies for the local insight and for sociological evaluation, should be welcomed. The voluntary availability to occasional work (e.g. in the case of student work), or on the contrary, the increase of cases of a 'mature' work-force compelled to accept a precarious environment in the working out for basic income, would, in fact, have diverse social implications.

Rising employment with stagnant hours

One important feature in the evolution of the aggregate demand for labour in Italy after the more recent recession is here briefly recalled. Fig. 1 reports the paths for the fall and successive recovery after the pre-crisis level in 2008; at the end of 2017, the total hours worked in Italy remained about 14 % below the peak before recession (II quarter 2008), while the number in employment had recovered the pre-crisis level. When the reduction of the average hours worked per worker is accounted for, and employment measured in terms of 'full time equivalents', the numbers would show that demand for labour had recuperated by that time only about the half of its

maximal loss at the cyclical trough of 2013. This is fundamental evidence for all further consideration around the actual determinants of ‘macro’ activation

Fig. 1
Total hours, employment and average hour per worker in the recent Italian experience



for labour. The dynamics for labour input, when measured in hours, appears to follow broadly the path of final gross product recovering at modest rates out of recession; in the meanwhile, the number of ‘job-matches’ appears to have been inflated by the changing composition of the workforce, with the increasing share of forms with shorter, or more discontinuous, engagement in hours².

² See Tronti (2018) for further detail on employment, hours, and evidences of ‘discontinuous’ work in the recent Italian experience.

The 'fundamentals' of a basic Keynesian vision, where the labour requirement is essentially a 'derived' result from the activation of an effective final demand, appears confirmed, thus, with the evidence however at the same time of a relevant ground for diverse options in the hiring decisions of the employers. The joint consideration of these 'macro' and 'micro' frames, within comprehensive analyses for numbers and compositions of total employment, is thus a task for further refinement of research. Before proposing preliminary suggestions in this direction, another important macro implication of the actual patterns in the Italian experience is briefly recalled.

The 'anomalous' values of a cyclical employment elasticity

The higher turnover associated to the use of term-contracts has given rise, in the recent cyclical experience, to values for a short-run employment/output elasticity, which appear 'anomalous', with respect to the experiences in other countries or also to the experiences in Italy itself in the past, for other episodes of a cyclical recovery. The numbers and comparisons are reported at Tables A1-A3 in the appendix. The Italian experience over the period 2013-17 appears as historically unprecedented: in the past, relatively rigid employment and relatively flexible hours (thanks to, in the main, extensive use of 'short-time' work arrangement without dismissals, "*Cassa Integrazione*", etc.) would rather have been signaled as the Italian peculiarities. The liberalized use of contingent labour appears to have changed radically the cyclical pattern of demand for labour. In the experiences, for a sample of other countries, as reported in appendix table A3, such a trend is not to be seen. Even in Spain, known for its extensive use of term-contracts, the employment/output elasticity has remained within a more reasonable range of 0.7-0.8.

High values of E/O elasticity have at its immediate counterpart the implication of stagnant dynamics, even in the phase of cyclical recovery, of the average product per worker. Stagnating productivity, and the rising doubts upon the 'quality' of the employment recovery, appears, at this point, to be the dual manifestations of a same, fundamental, Italian problem, that of an economy settling down, over a longer period, on a basically stagnating path.

Flexibilizing the forms of engagement of labour: only substitution effects ?

The mainstream debate upon the impact of the s.c. “Employment Protection Regimes” has, by now, essentially agreed that ‘reforms’ in the regulation, favouring the flexibility for the hiring and firing’ decisions at the margin, surely should bring an increase in the cyclical elasticity of employment. However, the opinion is more controversial for the possible outcome in terms of a net additional employment activation over the medium-run, as effect of the ‘flexibility’ clauses.

My opinion on this point is posited, in a sense, as ‘eclectic’. In that I remain in fact convinced that: a) overall volumes of a labour requirement remain essentially a demand ‘derived’ from the dynamics of the final demand markets; b) the intensity of cyclical ‘swing’ is encouraged by a more deregulated context; c) the point of net employment activation effects remains controversial, though I would admit that some additional amount of ‘contingent’ jobs might ‘emerge’ (or become statistically detectable ...), in the more permissive contexts; d) these ‘short’ options essentially involve service sectors, in particular in the domain of consumer services, with fluctuating demand and low productivity potential; their rising share in total employment contributes to the modest overall productivity performance of the macro-economy. ‘Keynesian macroeconomics’ for what the overall activation of labour is concerned, and allowing some sort of ‘microeconomics’ for the analysis of the substitution (and other marginal?) effect among jobs of differing continuity and contractual protection: the joint consideration of both levels of analysis appears to be relevant for comprehensive descriptions of actual trends.

A brief reminder of the Keynesian foundations: the derived demand for the input of labour

When the ‘supply-side’ constraints are not binding, the macro-economy would adjust in the short-run to the cyclical swings of final demand, through the variations in the utilization rates for inputs, labour *in primis*. In this, standard, Keynesian-Kaleckian demand-driven economy, ‘technical’ requirement for labour is simply the derivation of the ‘inverse’ reading for some short-run aggregate production function.

Following the original definitions in Keynes (in ch. 3 of ‘The General Theory’), we first write the expressions for the values of the aggregate supply and aggregate demand in their nominal term:

- $Y^S = P \pi N$
- $Y^D = C + I + G + (X - M)$

(‘P’ is the price index, ‘ π ’ the product per worker, and the conventional symbols of the income/expenditure accounting are used for the components of the aggregate demand in nominal terms.)

imposing $Y^S = Y^D$ and solving for ‘N’ , we obtain the central expression for the labour activation, as ‘justified’ by final demand:

$$N = (1/\pi) \times \left(\frac{1}{1 - [c_n + (c_w - c_n)\lambda](1 - \tau) + m} \right) \times (A/P) \quad (1)$$

(‘A’ aggregates here for the total of the ‘exogenous’ or autonomous demand; differential propensities to consume out of labour and non-labour incomes are introduced, and ‘ λ ’ , the labour share, is explicated as a relevant parameter in the expression of the ‘Employment multiplier’).

The fundamental reading from the above expression may be summarized as: *“If propensities and other parameters for the conventional income multiplier remain stable within any period, overall demand for labour inputs may show a positive growth, if and only if the rate of growth for “A/P” , autonomous demand , is higher than that of “ π ” , the average productivity of labour “.*

Without much theorizing, the heuristic power of the above expression appears however strong, as this is the result of strict derivation out of the fundamental identities of the National Accounting; this is the correct setting, we believe, for the ‘macroeconomic foundation’, before all further detail of the analysis.

When we observe, in fact, the variability over time and space for cyclical elasticities of measured numbers in employment, we understand how, given a total in hours, this 'technical' input might vary its composition between the number in employment, their average hourly engagement, and their average productivity, in the diverse circumstances. Structural, and institutional characteristics of the economy under consideration appear to be the key determinants in this variability. The empirical regularities, which were once observed in the literature (e.g. 'Okun's Law") appear, in fact, to have been somewhat weakened.

Extremizing: the 'Liquid' labour market

What kind of a 'microeconomics' is thus suitable for the framing of employers' choices for diverse compositions and contractual arrangement of their workforce ? We do not imagine, for this task, shifts along some, improbable, production function, with its marginal productivities defined in a static environment. A 'time-explicit' frame for the analysis of the job-match decision, as inspired from the dynamic models of investments, might be a more promising setting. The further elaboration in this occasion is however meant, as non- formal and preliminary.

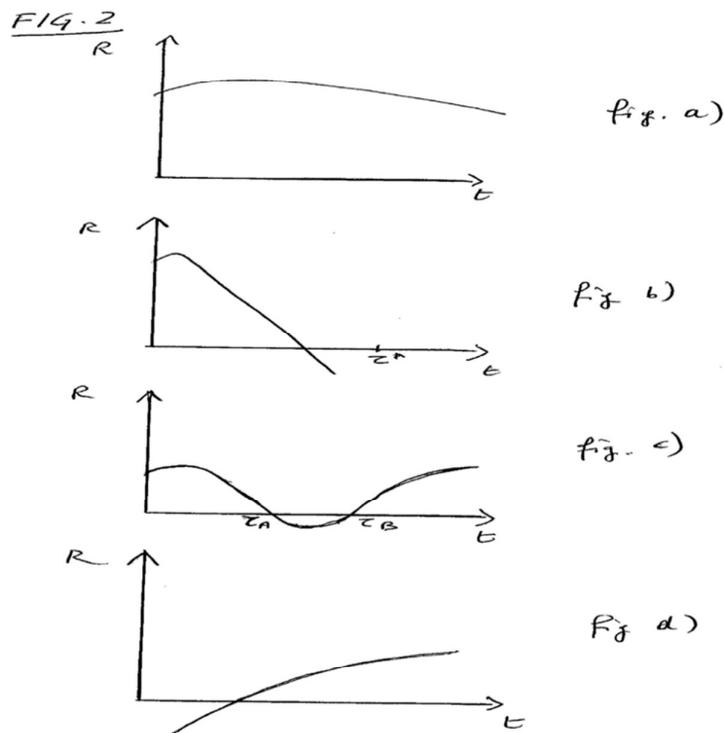
When employment activation is assimilated to a 'micro-investment' decision in the 'job-match', some calculation (or, with less precision, expectation) for the present value of the match as forthcoming from expected revenues and costs becomes relevant. If we 'extremize' for flexibility at the limit, the hiring of a worker, which was sometimes modelled as involving a decision in 'contractual' markets with reciprocal obligations of the participating parts extending over a period of time, might now rather be seen as evolving towards the conditions prevailing for transactions in 'liquid' markets similar, in some aspect, to those applicable for a financial investment in assets.

In a 'liquid' market, the options for investment may continuously be 're-evaluated' for their present value, in any successive period; should a negative number for expected value emerge at any moment, the option of continuation ("hold") of the investment, the 'job-match' in the case in object, should be 'terminated'.

We have not yet, hopefully, reached the stage of fully 'liquid' labour markets; however some typology of contractual arrangement may now be seen as approaching that state (i.e. the repetition of "short-jobs" as described for the Italian case; similar typologies in other countries are possible candidates for similar consideration; e.g. "Minijobs" in Germany, "Arbaito" workers in Japan, etc.).

The graphs, roughly sketched in the following figure, are meant as simple descriptive device for possible 'profiles' for the present value of an employment match, along the length of the time elapsing from the original moment of its start, represented on the horizontal axis. This presentation, in fact, has been inspired as original application from the notion of 'Capital values' as "the value of the remainder of the process at each date in its course" as in Hicks (1973, p.18), applied to the employment match considered as the 'investment' in object. Further (*ibidem*, p.19): "for at the point where the curve intersects the horizontal axis the process will be terminated."

Figure 2



We propose a rough description for the cases described:

In a) we describe the ideal path for a “stable” employment, maintaining a positive value to the employer over time;

In b) we have the profile of a ‘fast job’ , exhausting its profitability within short interval; should the legal constraint impose some minimum interval, “ τ^* ” for the duration of the contract, the match will not be activated (or activated in ‘black’, i.e. outside the legal frame);

In c) we have employment subject to expected risk of cyclical fluctuations in its profitable use; in conditions of ‘full flexibility’, the employer will fire at τ_A and rehire at τ_B ; and the social costs involved by turnover and instability would be borne by the worker (or Social Security); arrangements for the temporary subsidizing of costs and incomes , e.g. lay-off pay, short-time work arrangement, etc., may help in the case in reducing instability reducing the cost to the employer ;

In d) we have a match, potentially developing its profitable use after some loss in the initial period of ‘training and learning’; should an employer have a ‘short-term’ horizon for profit realizations, such a match risks not to be activated , with loss for future productivity and growth potential of the economy.

Provisional conclusion

Given the preliminary state of these reflections, positive conclusion or policy suggestion will not be proposed; we wish, rather, to hint at some possible path for further research.

For the comprehensive framing of the quantitative and qualitative dynamics of the present-day labour exchanges, we have insisted upon the need of integrating a ‘Keynesian circuit’ for the determination of total labour requirements, with the consideration of an increasing use of a ‘contingent’ forms of labour, with the wider variations in contractual forms , differing in the continuity and productivity of its engagement. This should bring to the

acknowledging and modelling for new typologies of labour market dualism, or more complex patterns of segmentation as taking place in the actual society. The policies aimed at reducing turnover costs borne by the firm, through the higher flexibilities at the 'margins' of the labour demand, appear to have contributed towards these trends. The references have been limited, in this occasion, to the Italian experience of the recent years. The macro-fundamental of the link between final demand activation and labour absorption does not appear to have been substantially altered; however, the turnover of contingent workers on short-duration jobs appears to have been inflated. In our consideration, we have allowed for the possibility that 'flexible' environments for labour use might contribute in increasing the numbers in employment; however, we see this increase as involving mainly, if not only, the 'margins' of markets for the 'shorter' uses of workforce. The unfavourable implication in terms of the advance of new forms of dualism and possible discriminations on the labour markets need further discussion. Research programs, combining the statistical ability in the detection and classification of the phenomena, the economic skills in their rationalization and formalization, and the sociological sensitivity in the evaluation of overall implications for the framing of the society as whole, complementing one another for comprehensive 'takes' of the tendencies as described, are called for.

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APPENDIX

APP. Tab 1
EMPLOYMENT/OUTPUT ELASTICITY: ITALY

	$\Delta Y / Y$	$\Delta E / E$	$(\Delta E / E) / (\Delta Y / Y)$
• Recession: 2009			
• After 2 years	2.2	0	0
• Recession: 2013			
• After 2 years	1.1	1.2	1.09
• After 4 years	3.5	3.7	1.06
• Recession: 1993			
• After 2 years	4.9	0	0
• After 4 years	8.1	0.8	0.10
• Recession: 1975			
• After 2 years	9.3	1.5	0.16
• After 4 years	18.2	2.9	0.16

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App. Tab. 2
EMPLOYMENT/OUTPUT ELASTICITY: USA

	$\Delta Y / Y$	$\Delta E / E$	$(\Delta E / E) / (\Delta Y / Y)$
• Trough: 2009			
• After 2 yrs.	4.8	0	0
• After 4 yrs	8.0	2.9	0.36
• Trough : 1991			
• After 2 yrs	6.2	2.1	0.34
• After 4 yrs.	10.2	5.9	0.58
• Trough: 1982			
• After 2yrs.	11.5	5.4	0.47
• After 4 yrs	19.1	9.6	0.50
• Trough: 1975			
• After 2 yrs:	9.7	6.9	0.71
• After 4 yrs.	18.2	14.1	0.77

App. Tab. 3
EMPLOYMENT/OUTPUT ELASTICITY AFTER THE YEAR OF CYCLICAL TROUGH IN
RECENT EXPERIENCE OF SOME EUROPEAN COUNTRIES

	$\Delta Y / Y$	$\Delta E / E$	$(\Delta E / E) / (\Delta Y / Y)$
• GERMANY :2009			
• AFTER 2 YEARS	7.6	1.7	0.22
• AFTER 4 YEARS	8.6	3.5	0.41
• FRANCE: 2009			
• AFTER 2 YEARS :	4.0	0.9	0.22
• AFTER 4 YEARS	4.7	1.6	0.34
• SPAIN: 2013			
• AFTER 2 YEARS	5.7	4.1	0.72
• AFTER 4 YEARS	11.9	9.2	0.77
• U.K. : 2009			
• AFTER 2 YEARS	3.1	1.3	0.42
• AFTER 4 YEARS	6.5	3.0	0.46