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Another look at wage and price flexibility as the solution to unemployment

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Another look at wage and price flexibility as the solution to unemployment[1]

David Dequech

Abstract

Many important arguments against money-wage and price flexibility as the solution to unemployment have been presented by different authors. Based on ideas developed in other works, this paper tries to contribute to this discussion, by organizing it and providing a more rigorous foundation for some of these arguments, as well as presenting new ones. The role of expectations and confidence is highlighted. Additionally, the paper considers the institutions of market structure and argues against oversimplifying the comparison between different market forms in terms of their impacts on employment.

Key words: Unemployment; Wages; Prices; Flexibility; Expectations; Confidence; Institutions.

Resumo

Vários argumentos importantes contra a flexibilidade de salários nominais e preços como a solução para o desemprego foram apresentados por diferentes autores. A partir de idéias desenvolvidas em outros trabalhos, este texto procura contribuir para essa discussão, organizando-a e apresentando novos argumentos, assim como fornecendo fundamentos mais rigorosos para alguns já existentes. O papel das expectativas e da confiança é destacado. Adicionalmente, o texto considera as instituições de estrutura de mercado e argumenta contra a simplificação excessiva da comparação entre diferentes formas de mercado em termos de seu impacto sobre o emprego.

Palavras-chave: Desemprego; Salários; Preços; Flexibilidade; Expectativas; Confiança; Instituições.

Introduction

The most central question of macroeconomic theory in the last five decades concerns whether money-wage and price flexibility leads to full employment. Many important arguments against money-wage and price flexibility have been presented by different authors over the years. Based on some ideas developed in previous papers, I try to contribute to this discussion, by organizing it and providing a more rigorous foundation for some of these arguments, as well as presenting new ones.

(1) This paper is a slightly modified version of chapter 10 of my PhD dissertation, recently submitted at the University of Cambridge. It is forthcoming as Dequech (1999d). I would like to thank my supervisors, Geoff Harcourt and Paul Davidson, for their advice and support. The responsibility for remaining mistakes is solely mine. Financial support from CNPq (Brazil) is also gratefully acknowledged.

Additionally, I consider the institutions of market structure and argue against oversimplifying the comparison between different market forms in terms of their impacts on employment.

The chapter begins by putting the debate in an historical context, marked by the rise and fall of the neoclassical synthesis. It then reviews and organize several usual arguments against the idea that money-wage and price flexibility ensure full employment. The next step is to expand and reinforce these arguments, initially dealing with expectations and confidence and, finally, dealing with the relation between the institutions of market structure, uncertainty and employment.

1 An historical perspective

Keynes upset the idea that the market forces, left by themselves, would lead the economy to full employment. This led to an attempt to absorb his ideas into neoclassical thought, in a process that culminated with the neoclassical synthesis.

The first important step in the direction of the neoclassization of Keynes's revolution was taken by Hicks in 1937. A debate followed about the shape and position of the IS and LM curves. Because of the possibility of an interest-inelastic IS curve and of a liquidity trap, the apparatus created by Hicks had to be complemented with something else to demonstrate the tendency towards full-employment equilibrium. Thus, the way towards the neoclassical synthesis proceeded by incorporating into the IS-LM model the neoclassical-Keynesian treatment of the labour market.

Given a situation of unemployment, even if a reduction in money-wages fails to *directly* bring the labour market to equilibrium at the level of full employment, this result was supposed, by the proponents of the neoclassical synthesis, to be *indirectly* reached through the operation of wealth effects from the fall in prices associated with the fall in money-wages. Even within the context of neoclassical-Keynesian thought, the Keynes effect may be insufficient to lead to full employment. Thus, a second wealth effect had to be conceived of, one by which consumption is increased. This is exactly what the so-called real balance or Pigou effect supposedly assures.

The dominance of the neoclassical synthesis broke down in the early 1970s, due to the dissatisfaction of many mainstream economists with (a) the synthesis' theoretical lack of "microfoundations" and (b) its empirical failure in dealing with the phenomenon of stagflation. This led to the emergence of New Classical Economics, first with Money Business Cycles (MBC) theory and later with Real Business Cycles (RBC) theory. In reaction against this, New Keynesian Economics appeared.

What is the position of these schools regarding the relation between money-wage and price flexibility and unemployment? New classicals have contested the very existence of involuntary unemployment. The reduction in the level of employment during recessions is seen as due to an optimal response of workers to perceived or actual variations in the real reward for labour. Unemployment thus results from an intertemporal substitution of leisure for labour. New Keynesians do not defend a unique position. According to Greenwald & Stiglitz (1993: 25-26, 36), many of them still stick to the view that, at least theoretically, an economy in which money-wages and prices were flexible would eventually reach full employment equilibrium. The mechanisms responsible for this are not discussed in detail but implicitly it is the real balance effect that does the job. For this strand of New Keynesianism, the important task is to explain the nominal rigidities which are believed to hinder the attainment of full employment. However, another strand of New Keynesian Economics, of which Greenwald and Stiglitz themselves are exponents, holds that increased money-wage and price flexibility might exacerbate the problem of unemployment. The deleterious effects of such flexibility on macroeconomic performance are also pointed out by "old" neoclassical Keynesians such as Hahn & Solow (1986, 1995).

2 Reviewing and organizing some arguments against wage and price flexibility

Whatever its practical meaning, the real balance effect, as well as any effect based on money-wage and price flexibility, may be criticized in theoretical terms. The argument is seriously flawed. Several problems with it have already been pointed out by other authors. These problems are so many that an effort is required to adequately organize the discussion.

According to Keynes (1936: 259-60), the effect of money-wage and price reduction on employment depends on what happens to aggregate demand relative to aggregate supply. Keynes and others who reason in these terms are implicitly assuming that producers project the current situation and particularly current demand into the future when they decide about production and employment. I shall deal more properly with this assumption in section 3. I initially discuss issues related to contrasting the effects of money-wage and price flexibility on aggregate supply and *ex-post* aggregate demand.

Employment is determined by what happens in the goods market. For Keynes, the labour demand function is not the marginal product of labour curve (see Davidson, 1967), contrary to a widespread view, even among some interpreters close to the Post Keynesian side, such as McCombie (1987/88: 207) and Vercelli (1991: 177; 197-98). Keynes (1936: 5, 17) accepted that under pure competition the marginal product of labour and the real wage are equal, because he assumed profit-maximization (Davidson, 1983: 562). He also accepted an inverse relation between the real wage and the level of employment, but only because he assumed diminishing returns to labour in the short period (Keynes, 1936: 17-18; also Davidson, 1967: 508; Minsky, 1975: 40-41). Keynes thus inverted the causality in this relation as seen by neoclassical economists.

The impact of a reduction in money-wages on employment depends on what happens with supply and demand in the goods market. Even if the impact on the supply side were favourable, because of a fall in costs, demand could be negatively affected.

I shall not consider here the stimulus that a reduction in money-wages may give to employment through its effect on exports. Even if there were no reasons to suspect that this stimulus may be modest (see Davidson, 1994, chapter 16), the effect of lower money-wages on exports cannot provide a solution for unemployment in the world as a whole. It can only provide a way of exporting unemployment from one country to another.

I therefore concentrate on domestic demand. I begin by examining investment and move on to consumption. In both cases, I start with the assumption that the money supply is exogenous, and then relax it to incorporate endogenous money. The case of an exogenous money supply is interesting because this assumption may facilitate the contrast of ideas inspired by Keynes with those of much of mainstream economic theory. Keynes did not completely incorporate an endogenous money supply in *The general theory*, possibly for tactical reasons

(Harcourt, 1987: 246).[2] It can be argued that even with an exogenous money supply the case against money-wage and price flexibility is very strong. In contrast, some authors (e.g. Palley, 1996) seem to occasionally overemphasize the importance of endogenous money in their rebuttal of pro-wage-cutting arguments.

After discussing the impact of money-wage and price flexibility on domestic demand, I refer to a more fundamental argument against such flexibility.

2.1. Investment

(a) Exogenous money

Wage and price flexibility may generate an expectations effect through which investment is reduced. A fall in money-wages may lead to expectations of further reductions and to the postponement of investment plans until money-wages are even lower (Keynes, 1936: 263; Dutt, 1986/87: 285; Asimakopulos, 1991: 125). For Smithin (1988: 145), this is the most persuasive argument against money-wage cuts. In addition, due to the influence of wages on costs and prices, there may appear an expectation of a lower stream of revenues to be obtained from goods produced with the additional equipment (Davidson, 1994: 186).

(b) Endogenous money

A fall in money-wages may cause a reduction in prices and this implies an increase in the firms' debt load (Keynes, 1936: 264, 268). There is a redistribution of wealth from investors to their creditors. This is the investment side of the Fisher debt effect. The increase in the firms' debt load may discourage them from investing (Minsky, 1975: 139) and/or may reduce the banks' willingness to finance new investment projects (Palley, 1996: 46). The increase in the real debt burden may lead debtors (not only firms, but also the general public) to default, and this, in turn, would lead banks to reduce the supply of credit money. The situation is

(2) Dow (1997) challenges the conventional wisdom that Keynes (1936) assumed an exogenous money supply. Some writers (e.g., Cottrell, 1994: 159) seem to associate the assumption of an exogenous money supply with Keynes's (1936, chapter 17) identification of a negligible elasticity of production as an essential property of money. However, the inelasticity of production does not mean that the quantity of money cannot be increased (exogenously or endogenously). It merely means that labour cannot be employed to produce money. This property of money is of crucial importance for Keynes's theory; the exogeneity of money is not.

worsened if there is insolvency and bankruptcies (Kalecki, 1944), including bank failures. This would reduce investment even further.

2.2 Consumption

(a) Exogenous money

The previous discussion immediately implies the possibility of consumption being negatively affected by the multiplier effect of investment reduction.

Additionally, in the case of consumption there may operate an expectations effect too: consumption may be postponed if there is an expectation of further reductions in the price of consumption goods. This has been incorporated into mainstream textbooks.

Another thing to point out is that wages are not only a component of cost but also a component of demand (Minsky, 1986: 123). A fall in the money-wage rate, if not offset by an increase in the volume of employment, implies a fall in the money-wage bill and may affect consumption. If any fall in consumption out of wages is not offset by an increase in consumption out of profits (Chick, 1983: 153-54), aggregate consumption decreases.

Related to the previous point is the possibility of a redistribution of income from wage recipients to profit recipients, which depends on how prices fall compared to wages. Depending on the difference in the marginal propensities to consume out of wages and out of profits, consumption may fall.

A similar problem may occur due to the redistribution of income from flexible money income recipients to fixed money income recipients (rentiers). Again, the effect on consumption depends on the different marginal propensities to consume (Keynes, 1936: 262).

(b) Endogenous money

The existence of inside debt implies another possible effect of declining money-wages and prices on consumption, via the redistribution of income, from inside debtors to inside creditors. This is the consumption side of the Fisher debt effect.

Indeed, an endogenous money supply may invalidate not only the Keynes effect (Keynes, 1936: 266; Davidson, 1994: 196n), but also the real balance effect (Elliott, 1992: 150; Lavoie, 1992: 247-48), for in this case the money supply falls with wages and prices. Nominal wealth may not increase at all.

2.3 A more fundamental problem: the viability of the monetary system

Davidson (1978: 231-32; 1980: 536-37) asserts that an uncertain world requires contracts, and contracts, as the basis of a viable monetary system, require money-wage stability, given the influence of money-wages on supply prices. With money-wage and price flexibility, the very possibility of organizing capitalist production is jeopardized (see also Weintraub, 1982: 448).

3 Expanding and reinforcing the arguments: expectations and confidence

It is now time to examine more closely how employment is determined. In particular, expectations and confidence must be considered more fully.[3] The expectations of the firms' decision-makers regarding the goods market are crucial for the determination of employment. These expectations refer to costs and revenues. Each firm can build its own supply and expected demand function, in the costs-revenue and employment plane. The firms' functions can then be aggregated to yield the aggregate supply and aggregate expected demand functions (see, e.g., Chick, 1983: 63-64).

The presence of uncertainty in these decisions led me to introduce the notion of a state of short-term expectations, in which both expectations and confidence are important (Dequech, 1999b). Let me begin with expectations. Keynes assumed, in chapter 5 of *The general theory*, that expectations were formed by projecting the current situation into the future, as long as producers did not see any reason to think differently. This should be seen as a convention. As should become clearer after I discuss confidence, this is but one possible pattern of expectations.

(3) For a detailed discussion of the main determinants of expectations and confidence, see Dequech (1999c).

What about confidence? If one assumes, as Keynes often did, that short-term expectations are fulfilled, even if by accident, one is assuming away the problem of how disappointment may lead people to lose confidence in the convention and abandon it. Nevertheless, even in this case confidence has to be considered.

A distinction between decision-makers and economic theoreticians is necessary at this point. Even if expectations are assumed to be fulfilled, decision-makers should not be portrayed as knowing this *ex ante*. Thus, once uncertainty is admitted, if the theoretician assumes that production decisions are based on expectations which are formed in a projective way, he/she is assuming, even if implicitly, that producers have enough confidence in these expectations to allow the latter to guide their behaviour. This is in principle independent of whether expectations are assumed to be fulfilled or not. If they are fulfilled, the confidence in the way they were formed may be reinforced (but even then something else may change which leads producers to abandon the convention).

The presence of uncertainty also means that liquidity considerations are important for production, not only investment, decisions. Firms may produce less and prefer more liquidity than they would if producers had more spontaneous optimism and confidence (and banks may refuse to lend them finance for working capital).

I can now turn again to the issue of money-wage and price flexibility, and in particular to what happens to employment if there is a fall in money-wages and prices. I shall leave for the next section an analysis that contrasts different market structures.

At this point, after having emphasized expectations and confidence, the first, and perhaps more general, argument I can present against the real balance effect and any other effect which is believed to always bring the economy to full employment equilibrium (or to any equilibrium, for that matter) is the following. If time, expectations and confidence are incorporated into the analysis, any supposed adjustment process must occur in time, and thus *expectations and confidence* should be shown to be formed in accordance with such a result. In particular, it would be necessary to make explicit how expectations and confidence are formed and to drop many *ceteris paribus* assumptions that characterize the neoclassical method in order to allow the factors that influence expectations and confidence to play their role. In other words, we must generalize Keynes's (1937: 109) argument against Leontief that "it is for those who make a highly special assumption to justify it, rather than for those who dispense with it, to prove a general negative" (see also Possas, 1987: 68).

Another general argument against money-wage and price flexibility is that this flexibility would imply breaking with institutions which have contributed to reducing uncertainty. Without such institutions, the degree of perceived uncertainty tends to increase and, for a given degree of uncertainty aversion, confidence tends to be reduced. With less confidence, decision-makers of several types will attribute a larger liquidity premium to money and other liquid assets, especially for precautionary reasons. This affects the goods market negatively, through what may be called a *confidence effect*. The interest rate may even rise, contrary to the Keynes effect (see Keynes, 1936: 263; Weintraub, 1982: 448; and Elliott, 1992: 148).

Although an increase in uncertainty and a decrease in confidence are sometimes mentioned in the literature on wage and price flexibility, these points need to be theoretically and consistently founded, and this is what I have tried to do. Uncertainty needs to be properly conceived of as coming in degrees. Moreover, expectations must be distinguished from confidence, and confidence must be distinguished from animal spirits. Just treating animal spirits as the sole, exogenous determinant of investment is not adequate to explain why money-wage and price flexibility may have a deleterious effect on employment.

Let me examine these and other issues more closely. In what follows, I begin with the simplifying assumption that *producers* still form their expectations of *demand* by projecting the current situation into the future and have such confidence in these expectations as to allow them to guide production decisions. Later on, I relax this assumption and show that its removal makes it even more difficult for one to believe that wage and price flexibility is the solution to unemployment.

3.1 Conventional projective short-term expectations of demand

If producers still behave on the basis of projecting the current demand into the future, the effect of a money-wage cut on their expectations of demand will take place in a future production period and will depend on what happens to current demand.

3.1.1 Investment

(a) exogenous money

Investment decisions are also usually made with the assumption that at least some of factors affecting cost and demand will remain stable over the lifetime of capital goods. Breaking with the conventions of stable wages and prices tends to have on investment the confidence effect described above. Even if the investors' expectations about the profitability (revenues and costs) of a project are not affected by money-wage and price flexibility, the confidence with which such expectations are held tends to be lower, because the degree of uncertainty is higher. A decrease in confidence may have a negative effect on investment (Dequech, 2000).

If investors were following the convention of projecting the current situation into the future, as Keynes argues that they often do, they may lose their confidence in this convention and abandon it, in case money-wage and price flexibility is increased. Even if their expectations are still conventional, their behaviour may stop being conventional as their confidence in the convention breaks down.

Other investors may abandon the convention (or whatever pattern of expectations they have been following) by becoming more pessimistic about the future. This is the case, already considered in the literature mentioned above, in which lower money-wages and prices lead investors to expect a lower stream of revenues to be obtained from the goods produced with the additional capital goods. For these investors, too, liquid assets become relatively more attractive.

(b) endogenous money

If the money supply is at least in part endogenous, *another type of confidence effect* may occur. We have to consider the liquidity preference of the banks' decision-makers, who have to make an asset choice too. By increasing uncertainty, money-wage and price flexibility tends to lead bankers too to lose confidence in their expectations of returns from loans and to attribute a greater liquidity premium to money and other liquid assets (bankers too might have been following the convention of projecting the current situation into the future). *Ceteris paribus*, this reduces the availability of funds to those firms that are still willing to invest.

Other bankers may become more pessimistic, especially if there is an increase in defaults and bankruptcies. This is the case already dealt with in the literature. For those bankers who had been following a convention, this would be another way of breaking with it.

3.1.2 Consumption

(a) exogenous money

Consumption too may fall due to an increase in uncertainty and a consequent decrease in confidence. Both profit and wage recipients may become more uncertain about what is going to happen to their income in the future, and try to save more (I write "try" because of the paradox of thrift).

(b) endogenous money

The increase in the real debt burden, discussed above, also affects wage-earners (Minsky, 1975: 54), as well as profit-receivers in their capacity as consumers. As happens with firms, the ensuing problems of reduced creditworthiness, insolvency, etc., may reduce both the consumers' willingness to go into debt and the credit available to them.

At this point it is useful to comment on the distinction between *lower* and *falling* wages and prices, which can be related to the difference between comparative statics and dynamics. Hahn and Solow (1986) emphasize this distinction and argue that, although lower wages and prices could be the solution for macroeconomic problems, a reduction in wages and prices has to take place in real-time dynamics, and this is troublesome. The above discussion can be used to show that even lower wages and prices (as opposed to falling wages and prices or wages and prices which are expected to be falling) may not have a positive impact on employment, because of their distributive effects. Nevertheless, I agree with Hahn and Solow that what they call real-time dynamics is extremely important. It is in it that expectations and confidence play their major role.

3.2 A breakdown in the short-term convention

In the previous section, an expectations effect and a confidence effect were allowed to involve bankers, consumers and, in their capacity as investors, entrepreneurs. This affected producers' expectations only indirectly, via its effects on current demand, and, by hypothesis, did not affect the producers' confidence in projective expectations. Now it is time to allow room for a direct change in the expectations and particularly in the confidence of entrepreneurs in their capacity as producers.

Even before current demand is affected, a cut in money-wages and other producers' prices may alter a producer's state of short-term expectations. Alternatively, this may happen after the first production period following the money-wage and price cut; projecting the most recent results may lead to mistakes and this may make producers review their procedure of forming expectations. Either way, producers may change their expectations, abandoning the belief that future demand will be like current demand. Another possibility is that they continue forming expectations projectively, but with less confidence than before the money-wage and price cut.

Once we accept that production decisions also involve uncertainty, we can imagine that producers may also consider their confidence in expectations when deciding what to do. I referred in Dequech (2000) to a subjective rate of discount applied to expectations of returns from assets. Similarly, I suggest here that producers, if they are aware of the uncertainty involved in production decisions, may apply a discount factor over their expectations of demand. This discount factor is a combined result of uncertainty perception and uncertainty aversion.

Suppose producers decide about production by conceiving of the firm's supply and expected demand curve. Even if they do not form more pessimistic expectations of demand and continue to project current demand into the future, the expected demand curve may shift downwards. This would happen if producers have less confidence in their expectations than before, because of an increase in perceived uncertainty. They would apply a larger discount factor to their expectations such that the discounted expected demand would be lower for each level of employment. This is a very plausible result of money-wage and price cutting. The aggregate expected demand curve will also shift down, tending to reduce aggregate employment.

Producers may also apply a discount factor, more specifically a multiple greater than unity, to their cost expectations. If producers continue to enter into contracts to purchase and hire inputs and to obtain finance, this implies some control over nominal costs and confidence in cost expectations. Their expectations of demand have to be properly discounted so that producers consider their ability to honour these contractual commitments. Particularly important here is the fact that with lower money-wages and prices nominal proceeds tend to be reduced – even if once and for all (the question is whether the producers know if this is a once-and-for-all cut or not and if they know the exact percentage by which their nominal demand is going to be changed).

If money-wage and price flexibility leads people away from contracts, there is more uncertainty regarding costs as well. Producers then have less confidence in their cost expectations and may apply a larger multiple to these expectations, which would shift their supply curve upwards. More seriously, without contracts the very possibility of organizing capitalist production is jeopardized. This leads me to the next topic.

3.3 The viability of the monetary system once more

Davidson has long emphasized the importance of contracts for the organization of production in an uncertain world, as well as the importance of stable money-wages for stable prices and consequently for contracts. His point is that firms might not be willing to produce anything if they do not have any significant control over monetary flows. Davidson (1978: 385) argues that some institutions provide a basis for "a *conventionality* of belief in the stability of the system" (emphasis added). In particular, contracts and especially the money-wage contract are crucial for the "conventionality of belief" in price stability (see also Dequech, 1999a).

An adequate foundation for this argument can be provided by defending a notion of uncertainty according to which: (1) uncertainty does not imply complete ignorance; (2) there may exist institutions which provide an ontological basis for some kind of knowledge even in an environment liable to unpredictable structural change; (3) uncertainty comes in degrees.

4 Expanding and reinforcing the arguments: institutions, market structure and uncertainty

4.1 The forms of competition

It has long been argued by mainstream economists that unemployment is either voluntary or due to the presence of monopolistic elements typical of imperfect competition and/or unionized labour (in the latter case it could also be considered voluntary, if labour prices itself out of employment). An attempt to provide a solid foundation for arguments against the view that wage and price flexibility could assure full employment has to deal with the institutions that characterize the form of competition. For this purpose, and regarding the goods market in particular, one can conceive a form of competition in which prices are flexible, especially in response to an excess of supply over demand. The presence of many atomistic firms or, more precisely, free entry, would be an ideal feature in this exercise. However, if uncertainty is admitted into the picture, then competition cannot be considered as perfect in the usual sense, which requires perfect knowledge on the part of producers, not to mention consumers (Chick, 1992; Elliott, 1992). Perhaps pure competition, in Chamberlain's sense, is a better denomination (see Sardoni, 1992: 380; Dutt, 1992: 136). The firm faces uncertainty at least as to the market price. This is the notion of free competition compatible with Keynes's *General Theory*.

A point neglected by other authors is the need to reconcile the assumption of such a purely competitive market form with the discussion of the sources of uncertainty. The possibility of innovation is a major source of uncertainty in economic decisions (Dequech, 1997). However, this possibility cannot be used as a source of uncertainty if one assumes some form of pure competition, because innovation implies a new product or some cost advantage. Nevertheless, uncertainty under pure competition can still be related to the possibility of other types of structural changes, for example, of a political, social or cultural nature.

The assumption of pure competition should be handled with special care, and for adequate purposes. It is crucially important to distinguish between two types of discussion. Keynes and some of his followers, particularly some Post Keynesians, can be seen as arguing that even if pure competition existed or could be established, flexible wages and prices may not ensure full employment.[4] The assumption can be made for this purpose even if its unrealisticness is fully admitted. Even such an unrealistic assumption can be useful for policy discussions, since it can serve to contradict policy proposals to make wages and prices more flexible. Most of the discussion in sections 2 and 3 above can be directed to this track.

(4) As Harcourt (1987: 244) argues, in *The general theory* Keynes took the degree of competition as given and his acceptance (1936: 5) of the 'first postulate' (real wage equal to marginal product of labour) was qualified for the case of imperfect competition. Also conditional was his acceptance (1936: 283) of the equality between price and marginal cost (Chick, 1992: 151).

A second, different discussion concerns whether pure competition exists or can exist. The idea here can be to show that, regardless of whether flexible wages and prices ensure full employment, a purely competitive economy cannot exist or at least not for long. In capitalism, a market structure characterized by the exclusive presence of many small, equal firms tends to be endogenously destroyed. This can provide a second type of argument, which I also endorse, against flexible-wage-and-price policies.

To begin with, even if pure competition could be established, uncertainty would still exist. This uncertainty, even being of a restricted type (by definition, as seen above), threatens the long-term survival of anything similar to pure competition. The point is that uncertainty itself provides an incentive for firms to secure market power as a means to control the future (see Peterson, 1987: 1597-98, who looks at the modern corporation from this perspective).

Moreover, competition should be understood in a dynamic way, as in Marx's discussion of relative surplus and in Schumpeter (1943, chapter 7), who acknowledges his debt to Marx in this regard. Competition implies a built-in mechanism of change: the search for extraordinary profits, for monopoly, even if only temporary. This leads firms to innovate. "This process of creative destruction is the essential fact about capitalism" (Schumpeter, 1943: 83). Any policy proposal to "purify" competition is doomed to fail, as there is an inherent tendency to differentiation among firms. The possibility of innovation should not be assumed away when discussing this type of policy proposal more fully. In reality, competition can never be pure in this sense (not to mention the difficulty or even the impossibility of reconciling such a form of competition with the advantages of a larger firm size, such as economies of scale, pointed out by Sraffa in his classic 1926 article, and better access to credit).

4.2 A dynamic view of market structures and macroeconomic performance

A traditional view exists according to which the price rigidity characteristic of oligopolistic and monopolistic market structures implies lower production and employment and higher prices than in more competitive structures. In his discussion of monopolistic practices, Schumpeter (1943, chapter 8) addressed the issue of price rigidity and the argument that it is responsible for a lower volume of employment than in "perfect" competition. This argument, he says, is "vitiated by a *ceteris paribus* clause that is inadmissible in dealing with our process of creative destruction. From the fact, so far as it is a fact, that at more flexible prices greater quantities could *ceteris paribus* be sold, it does not follow that either the output of the commodities in question, or total output and hence employment would actually be greater".

In his specific discussion of price rigidity, Schumpeter's main point is that perfect and universal price flexibility could further destabilize the system (also Shapiro, 1997 and Hodgson, 1988: 187-91). This point has basically to do with the expectations and confidence effects mentioned above. The expectational parameters should not be included in the *ceteris paribus* clause. However, Schumpeter's contribution to a critique of the traditional view goes far beyond this point and is, alas, neglected in macroeconomic discussions of wage and price flexibility.

First, the traditional view overemphasizes price competition, but this is just one among many forms of competition (Schumpeter, 1943: 84-85). Oligopolistic market structures cannot be said to be less competitive than ones in which barriers to entry are lower. Indeed, the very gradability of competitiveness is questionable (Possas, 1989: 169). I will therefore write only of market structures which are more *price*-competitive than others.

Perhaps more important is Schumpeter's methodological stance. Practices such as price rigidity must be considered from a long-run perspective. When this perspective is combined with a dynamic conception of competition, we can realize that "the impact of new things – new technologies for instance – on the existing structure of an industry considerably reduces the long-run scope and importance of practices that aim, through restricting output, at conserving established positions and at maximizing the profits accruing from them. We must now recognize the further fact that restrictive practices of this kind, as far as they are effective, acquire a new significance in the perennial gale of creative destruction". Monopolistic practices may protect rather than impede long-run expansion (Schumpeter, 1943: 87-88, 105-6).

Of particular importance here is the fact that firms in less price-competitive market structures are often in a better position to introduce successful innovations. This is particularly true of big business, although size is not an absolute determinant (Schumpeter, 1943: 100-101, 106). Whether oligopolistic structures do have this effect or not may be a controversial question (see Freeman and Soete, 1997, for a balance of the literature on this), but it has to be considered. The introduction of new goods and new methods of production may be of great importance in creating new profit opportunities (and preventing a stationary state; see also Davidson, 1978: 92).

A possible positive influence on innovations should not lead us to hastily conclude that a monopolistic and oligopolistic economy will necessarily have a higher level of production and employment than a more price-competitive one. This discussion is more complex than it may seem. I would like to mention at least three complicating factors.

First, there is the fact that monopolistic and oligopolistic market structures are characterized by a lower degree of capacity utilization.[5] Although planned excess capacity is part of those monopolistic practices which Schumpeter rightly interprets in a broader context, it implies a stronger accelerator effect of investment over the cycle, which tends to amplify fluctuations of production and employment. On the other hand, although this accelerator effect may be less intense in more price-competitive structures, the entry and exit of firms volatilizes the level of production and employment.

Second, and perhaps more complicated, *the same process* that led to the emergence of large corporations brought into life what may be called modern financial markets. As Keynes argues, this facilitates the financing of investment but it may also exacerbate the degree of instability of capitalism. Davis (1994: 168-69) goes so far as to argue, in his reading of Keynes, that the separation between ownership and control has "decidedly negative effects on the level of investment expenditure". Whatever the validity of this as an interpretation of Keynes's view, the conclusion seems unwarranted without a consideration of the possible positive effects of big business, pointed out above and which Keynes tended to neglect or was not interested in discussing.

Third, there is the problem of technological unemployment. Innovations open new profit opportunities, but they may also increase productivity and render old products or production methods obsolete, destroying more jobs than they create. Employment can grow significantly less than production.

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(5) Uncertainty is a major reason for this. Excess capacity works as a reserve that guarantees flexibility against unexpected circumstances (Steindl, 1952: 9). This is similar to the precautionary demand for liquidity, with the difference that in the present case the reserve has to be physical, due to the time required to build capital equipment.

5 Concluding remarks

The theoretical framework developed in previous papers and adopted here provides a more solid foundation for existing arguments against wage and price flexibility and suggests new ones. Both expectations and confidence may be negatively affected by such a flexibility. Moreover, the institutions of market structure have to be properly dealt with. If pure competition is discussed, the purposes of doing so need to be well understood. In addition, the discussion has to be compatible with the view on the sources of uncertainty. Finally, a dynamic view of competition must be adopted, which makes it more complicated to compare different market structures in terms of their impact on employment.

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