

ECONOMIC THOUGHT THROUGH THE PRISM OF NEW KEYNESIAN ECONOMICS

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Abstract

In this paper I study the relation between real wage rigidity and nominal price and wage rigidities. We formulate a generalized price-setting framework that incorporates staggered contracts of multiple durations and that enables us to directly identify the influences of nominal vs. real rigidities. We also find that new contracts exhibit very low sensitivity to marginal cost, corresponding to a relatively high degree of real rigidity. For instance, in models focused on labour contracts, wages are regarded as an „insurance” provided by the employer to the workers, while in efficiency wage models, wages are determinants of labour productivity. Such models have the ability to account for unemployment, but they are not able to explain the failure of the classical dichotomy.

Keywords: *nominal rigidities, real rigidities, efficiency wages, unemployment*

Clasificare JEL : B00, B22, N1

1. Introduction

What are New Keynesian economics? Simply put, it is: economic theory that incorporates the Micro-Foundations that Lucas found to be so important when trying to illustrate the macroeconomy; an acceptance of the theory of Rational Expectations; a belief that firms are not perfectly competitive rather, they are monopolistically competitive; a belief that, wages and prices are “sticky;” therefore, market failures and involuntary unemployment are possible, and government intervention is able to (and should) hasten the markets return to equilibrium. According to classical economics government has minimal role in the economy, and the macro-economy is self-adjusting; meaning consumers and businesses will correct any problems with the economy automatically over time. Classical theory focuses on long-term goals. And according to Keynesian economics government has a large role in the economy, and focuses on short-term goals. Used mostly in times of recession, government spending is a good way to put money back into the GDP and in turn increase unemployment. The classical theory is based on the conception of static economy, whereas Keynes's theory is dynamic. The classical economists concentrated on equilibrium at a certain time, but Keynes introduced future expectations into economic analysis and thus analyzed a dynamic economy. Monetary and fiscal policies change over time. And so does our understanding of those policies. The Classical Model was prevailing with full popularity before the Great Depression of 1930. For example during the Great Depression, unemployment was widespread, many businesses failed and the economy was operating at much less than its potential [1]. It portrays the economy as a free-flowing, with prices and wages freely adjusting to the ups and downs of economy over time [2]. However, Keynesian economists are in favor of general intervention by the state to create an efficient market [3].

Table No. 1. Macroeconomic Schools [4]

	<i>No Prefix (Post)</i>		<i>Neo</i>		<i>New</i>	
	<i>Classical</i>	<i>Keynesian</i>	<i>Classical</i>	<i>Keynesian</i>	<i>Classical</i>	<i>Keynesian</i>
<i>Modeling Techniques</i>	Informal; based on Quantity	Informal; based on sim- ple income	Semiformal; focused on IS/LM model	Semiformal; focused on IS/LM	Formal; based on general	Formal; based on general

	Theory and Say's Law	expenditures model		model	equilibrium, Say's Law, Quantity Theory, rational expectations and market clearing	equilibrium with macro externalities, rational expectations and multiple equilibria
<i>Institutional Backdrop</i>	Informal; contextual	Semiformal; semicontextual	Semiformal; semicontextual	LM curve rather elastic; dichotomy broken by Keynes effect	Quantity Theory; dichotomy between real and nominal sectors; no formal analysis of money	Money is part of production function; dichotomy inherently broken
<i>Monetary Theory</i>	Quantity Theory; dichotomy between real and nominal sectors	Unclear how monetary sector is integrated into real sector	Formal money market analysis with LM curve rather inelastic; Quantity Theory dichotomy broken by Pigou effect	LM curve rather elastic; dichotomy broken by Keynes effect	Quantity Theory; dichotomy between real and nominal sectors; no formal analysis of money	Money is part of production function; dichotomy inherently broken
<i>Explanation of Unemployment</i>	Wage rigidities	Cyclical fluctuations; shortfall of demand	Wage rigidities	Wage rigidities combined with shortfall of demand	Model precludes unemployment; wage rigidities would cause unemployment	Initial model focuses on aggregate inefficiency, not unemployment

2. The distinctive elements of New Keynesian thought

Using the above terminological backdrop, let me now be more explicit about why New Keynesian economics requires its own classification. I accomplish this by posing two questions central to the macroeconomic debate and comparing the New Keynesian answer with the neoKeynesian answer. The two questions are:

1. How can a macro economy get stuck at less than a full employment equilibrium?
2. What role do wage and price rigidities play in the thinking of macroeconomists?

NeoKeynesians answer these two questions as follows: the macroeconomy can get stuck at less than full employment equilibrium if there are not perfectly flexible wages and prices; it follows that the answer to Question 2 is that the flexibility of wages and prices is a fundamental research question for neoKeynesian economists. New Keynesian economics agrees with neoKeynesian economics that an under-full-employment equilibrium can occur only if wages and prices are less than perfectly flexible (or if there are corner solutions) but it does not see this question as worthy of significant study. Hence, the neoKeynesian and New Keynesian answers to the second question are fundamentally different. NeoKeynesian economics focuses on issues of wage and price flexibility; New Keynesian

economics focuses on more general issues of coordination failures. Thus, in the work of New Keynesian economists, like Classical economists, there is little direct analysis of issues of wage and price level flexibility or unemployment; unemployment is a derivative issue to be considered only after certain difficult questions in general equilibrium have been resolved. The novel element in New Keynesian thought is the recognition that, simply because there is no unemployment, there is no reason to believe that the equilibrium arrived at is optimal. There can be what might be called aggregate X-inefficiency, which means the output is not at the desired level. Thus, while agreeing that unemployment is important, and must be explained, New Keynesian economics first tries to understand potential inefficiencies which can develop in an aggregate economy within a general equilibrium framework. In fact, once the New Keynesian general equilibrium context is understood, it is reasonable to conclude that wage and price inflexibility can actually improve the economy's performance, making it consistent with the argument Keynes made in *The General Theory*.

3. An example of how wage and price inflexibility can improve aggregate efficiency

Say that the widget economy with perfect wage and price flexibility can arrive at two general equilibria, one with an output of 1,000 widgets, and one with an output of 400 widgets and the social utility is directly related to output. Both are full employment equilibria but the first equilibria has a much higher output and hence real wage than the second. Assume that the institutional structure is such that there is no way for it to move from the second to the first once it has arrived at the first. However, say that by establishing institutional conventions which limit wage and price flexibility, the economy can move to a new equilibrium with unemployed resources in which it produces 600 widgets. That unemployment equilibrium is preferred to the 400 widget full employment equilibrium, and could be a Pareto improvement if some means of compensating the unemployed can be other papers I suggested that, at most, this work could be called New neoKeynesian (Colander 1991, 1992), but said that such sub classification strains the memory banks of even macro specialists. Thus, an important part of the New Keynesian research program is to show that multiple equilibria situations can describe the economy, and show that limiting wage and price flexibility can improve on that equilibrium. Is it possible that the aggregate economy can be at full employment, but nonetheless operate at less than ideal output? In the New Keynesian technical models, the answer is definitely yes; they have shown that it can, but those models are highly abstract and the question remains whether they carry over to the real world: Can the models be reduced to a reasonably satisfying story? I believe the answer is “yes;” there are several reasonable stories one can tell to intuitively justify the existence of aggregate X inefficiency. One of the stories is almost identical to the familiar no-prefix Keynesian story of the multiplier. Individuals believe there will be low demand and in expectation of that low demand, they produce little and there is low output. In that story miscoordinated expectations cause low output [5].

4. The difference between nominal versus real rigidities

The phenomena include real wage and real price rigidities, as well as lack of temporal synchronization of price changes by firms. Thus, Ball and Romer have improved previous New Keynesian models, which were rather unrealistic and inconsistent with empirical evidence. For instance, substantial nominal rigidities can arise from the combination of a real rigidity on the labour market and the imperfect competition hypothesis or the menu costs hypothesis. If firms pay efficiency wages – which generate real wage rigidity – then real wages may be above their equilibrium level, in which case a decrease in labour demand may considerably reduce employment, without triggering a large reduction in the real wage at the same time, even if labour supply is inelastic.

The real rigidities' importance is not yet clear in what regards their sources, amplitude or precise effects. In addition, even the cumulated effect of nominal barriers and real rigidities is not entirely capable of explaining the amplitude and persistence of nominal shocks' effects on real variables. In all models, these effects are eliminated when the price adjustment occurs, but this does not happen in real economies. One possible explanation is the assumption of unsynchronized price adjustment by firms, which results in a longer adjustment period for the general price level and implies that nominal shocks can have large and long effects, even though individual prices are changed frequently. Research focused on the lack of synchronization complement those on nominal rigidities arising from menu costs, because for a given frequency of price changes, the lack of synchronization slows down the adjustment of the general price level. A plausible explanation that consolidates New Keynesian models – though little explored so far – is that of asymmetrical effects of demand shocks, since the models discussed so far involve symmetrical responses of the economy to rises and falls in aggregate demand. For instance, in many of the asymmetrical effects models, a demand decrease leads to a large output decrease, whereas a demand increase usually leads to price increases. Such asymmetries are very promising, as they support the Keynesian belief in the opportunity for demand stabilization. It is not yet clear if Keynesian models can be adapted to generate such asymmetries, and if they can, whether they can be formalized within the framework of current research.

Apart from difference models, recent research has incorporated two new assumptions into existing models: imperfect competition and more emphasis on price – rather than wage – rigidities. In what regards imperfect competition, it is largely acknowledged that rigid prices are practically incompatible with perfect competition, because economic agents are not price setters; therefore, it is only on imperfect markets – where firms are able to set prices – that we can analyze the issue of adjustment. Keynesian models in the '70s however, incorporated nominal rigidities in walrasian economics, which often generated deformed results and require additional hypotheses. Introducing the imperfect competition hypothesis solves a lot of theoretical problems of the existing models through a series of advantages: the level of output is always demand-determined; expansions lead to an increase in welfare; wage rigidities cause unemployment through a low aggregate demand; nominal rigidities have externalities on aggregate demand; imperfect competition clarifies the evolution of the real wage throughout the business cycle.

Now, the second theoretical innovation regards the shift of the research focus on the goods market. Keynes and his followers focused on the labour market rigidities and studied nominal wage rigidities primarily. Current research integrates labour market and goods market rigidities, with an emphasis on the latter and analyzes the combined effects of both nominal and real rigidities. This innovation has at least two advantages: (i) even though substantial nominal wage rigidities is present in modern economist, their real effects are not clear; research in the field of implicit contracts shows that maintaining employment independent from wages could be beneficial: firms prefer to choose the level of employment they deem efficient, rather than move on the labour demand curve when real wages change, whereas buyers on the goods market operate along the demand curve, and (ii) the focus on the goods market re-confirms the observation that real wages do not have a counter-cyclical evolution throughout the business cycle.

Further, the focus on the goods market reconfirms the observation that real wages do not have a countercyclical evolution; as already shown, this failure of traditional Keynesian models can be solved even if nominal rigidities are only present on the goods market. But it is much easier to provide a theoretical explanation for the evolution of real wages, when wage rigidity is combined with price rigidity: in this case, the effect of a shock on real wages depends on the relative size of the adjustments-both of prices, and of salaries. At the end of this presentation we must discuss the importance and feasibility of recent theories. The real effects of nominal disturbances depend on a series of barriers-or imperfections-of nominal nature. The only alternative to this approach is the assumption of imperfect information regarding the general price level. And if we reject the short-term monetary neutrality, we cannot possibly explain the relationship between real and nominal variables without resorting to nominal rigidities in the economy. Nominal rigidities are also important to explain the effects of real shocks on aggregate demand, triggered for instance, by shifts in public spending or in investors' expectations. There are other possible explanations for the effects of real shocks on demand – for instance Barro's model of public spending; but the nominal rigidities assumption is still the most feasible explanation, considering that such explanations assume a large elasticity of labour supply. In the models we presented, the slow adjustment of prices results in a temporary deviation of output and employment from their natural level. Apart from these models, another type of models have emerged recently, founded on the phenomenon of hysteresis – which involves permanent effects of shocks. Such a model is that proposed by Blanchard and Summers (1986) – which postulates that the natural rate of unemployment in European countries changes when the real unemployment rate changes, so there is no unique level towards which the latter tends to return to. If these theories are correct, then the nominal rigidities cannot provide a comprehensive explanation of unemployment, because nominal prices adjust to shocks eventually. Under these circumstances, additional explanations are required, such as the insider-outsider model constructed by the two authors. Still, it is nominal rigidities that maintain the crucial role in explaining initial impulses of unemployment [6].

It is a combination of real and nominal rigidity that leads to incomplete nominal adjustment. New Keynesian models can seem vague and flexible, so this leads to skepticism. Central prediction is that nominal wages and prices do not adjust immediately and that independent monetary disturbances should affect real activity. There is lots of evidence that price and wage adjustment is sticky, but sizes and timing of price changes do not entirely fit the predictions of any new Keynesian model.

5. Conclusions

The new Keynesian theory attempts to address, among other things, the sluggish behavior of prices and its cause. The theory explains how market failures could be caused by inefficiencies and might justify government intervention. Whether this intervention should occur is a more complex question. Therefore, economists tried to integrate nominal and real rigidities, which led to a series of new theories on business fluctuations. Last but not least, the success of recent models is largely the result of two innovations: the imperfect competition hypothesis and the integration of price rigidities and wage rigidities.

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