

PIGOU'S THEORY OF UNEMPLOYMENT A FRAMEWORK FOR INCREASING EMPLOYMENT

Darrell Myrick
University of South Africa, Unisa

ABSTRACT

This paper discusses those Keynesian interventions in response to Pigouvian welfare economics and argues that in this present state of economic affairs, what is called for are specific interventions to decrease levels of unemployment resulting from the world economic recession. It is further argued that classical theory and Pigouvian welfare economics can serve as a framework to facilitate a world recovery from what has been called "The Great Recession."

Keywords: A.C. Pigou, welfare economics, classical theory of unemployment, job creation, frictional unemployment, neoclassical economics

INTRODUCTION

The classical school of economics puts forth a theory of employment that is applicable to specific instances in explaining the equilibrium of the demand and supply schedules for employment – i.e., the intersection of the marginal product of labour and the marginal disutility of the amount of labour employed. While classical postulates were thought to be comprehensive enough to explain the volume of employment at a particular wage level, a Keynesian economist would argue that labour's response to, say, a proposal to work for a lower money wage was not considered and that the supply of labour, therefore, is a function of real wages. Keynes himself suggested four interventions to increase the level of employment. In short: 1) improving the organisation and diminishing frictional unemployment; 2) decreasing the marginal disutility of labour; 3) increasing the marginal physical productivity of labour; and 4) increasing the price of non wage goods (Keynes, 1957).

Economists might argue that the economic theories of Pigou (1877-1959) and Keynes (1883-1946) respectively marks the end of classical economics and the beginning of post-modern economics (Hoff & Stiglitz, 1999). Undoubtedly, Keynes (1957) differed wholeheartedly with classical theory on the matter of utility of wages relative to the marginal disutility of labour. There, perhaps, should be an examination of the extent to which the latter rejected the former as an intellectual, an academic and a superior economist in expressing sound theories that may be applied to real world circumstances. That Keynes entitled his work *The General Theory of Employment* (1936), the antithesis of Pigou's *Theory of Unemployment* (1933) stirs the imagination as to the extent that Pigou's theories gave rise to Keynesian Economics. While the Theory of Unemployment had its weaknesses, it at least should be credited for stirring debate and a desire to improve on classical economics. Past theories, no matter their shortcomings, should not be so easily discarded or forgotten.

Interestingly, the two seminal works that are the subject of this paper were written at a time of great upheaval – the great depression. Comparatively, the *great recession* of the late twentieth century that has extended well into the twenty-first century is reminiscent of the great

depression. What the two have in common (i.e., the great depression and the great recession) is that they both exemplify significant world wide economic decline. Economic depression is not characterized by the depressed economy of just one country. Rather, all or most developed countries experience little or no growth, with a domino effect upon all other world economies – to include developing and third world countries. More than the great depression of 1920s, world economies are now so interconnected that a market decline on Wall Street immediately impacts all world bourses and their respective markets (Chan-Lau, 2010). There was a global crisis then and there is a global crisis now. The biggest fear now is a double dip recession. Monetary policy and government spending, two Keynesian approaches, have yet to impact unemployment, create much needed jobs or stem the decline of GDPs. In his day, Pigou was at the frontline on the battle against unemployment through his investigation of business fluctuations (Takami, 2007). His recommendation to withdraw from the gold standard was as radical as today's suggestion that an alternative to the dollar be sought as a more acceptable universal currency for trade. At best, Pigou showed great insight and introspection by endeavoring to understand the inherent cause of business fluctuations – namely, real, psychological and the monetary causes for business cycles.

Essentially, before there was Keynes there was Pigou. Unfortunately, or perhaps fortunately, Keynes had “uplifted” himself on the works of Pigou. In doing so, Keynes had forever tied himself to his predecessor. We cannot speak of a *Theory of Employment* without thought of *A Theory of Unemployment*. Reflecting on today's worldwide economic crisis, there is occasional reference to Keynesian Economics being the cause of a great recession – e.g., failure to respond to market failures resulting from competitive free market activities (Pilling, 1987; Shenoy, 2009; Hodgson, 2011). This remains to be proven. With that being said, this paper takes a step back to assert that Pigouvian Economics has come full circle. That is to say: Pigou, his Theory of Unemployment and his social welfare approach to economics can serve as a framework for a recovery in the early twenty-first century.

BACKGROUND OF THIS STUDY

Classical Theory of Unemployment

Lately, A.C. Pigou has come to be regarded as the favored economist to explain and model world financial crisis (Cassidy, 2009). Being an unlikely favorite, he has been deceased for more than fifty years but his notions on Welfare Economics may well be the panacea for getting economies out of a lingering great recession. If there is any time in which a national dividend is needed, it is in this early twenty-first century with there being little or no economic growth and an inability to create jobs, thus contributing to prolonged unemployment. His *Theory of Unemployment* may well serve as a framework for decreasing unemployment – e.g., government interventions, tax incentives and public works projects.

Harris (1935) praised Pigou's Theory of Unemployment as being one of the great books of recent times. That praise then is now most relevant, as many ailments of those times closely mirror ailments of today. In the face of business fluctuations, Pigou (1933) sought to explain changes in the demand for labour at the level of an individual occupation and in a way that all occupations could be traversed. One aspect of his theory of unemployment entailed a derivation for the elasticity of real demand for labour, with emphasis on wage good theory.

Understandably, it would be time consuming to model the demand for labour in each and every occupation but offering a model to do so, Pigou took steps to model the following real

world situation. Simplistically, in an ideal world there exist a definite real world demand function for labour in some time period, such that real wage rate asked by workers corresponds to a definite quantity of labour, the following ratio models an instance of extremely small differences in the wage rate asked by labour and the demand for labour:

$$\frac{\text{Proportional Change in Quantity of Labour Demanded}}{\text{Proportional Change in the Wage Rate}} \quad (1)$$

Moreover, Pigou thought it necessary to measure the proportional change in the quantity of employment relative to the proportional change in wages asked for by workers. Indeed, in the following ratio he differentiates between the small [infinitesimal] and the not so small but finite differences in wages. In the instance (1) above, he refers to the changes in the wage rate and in (2) below he refers to change in wages.

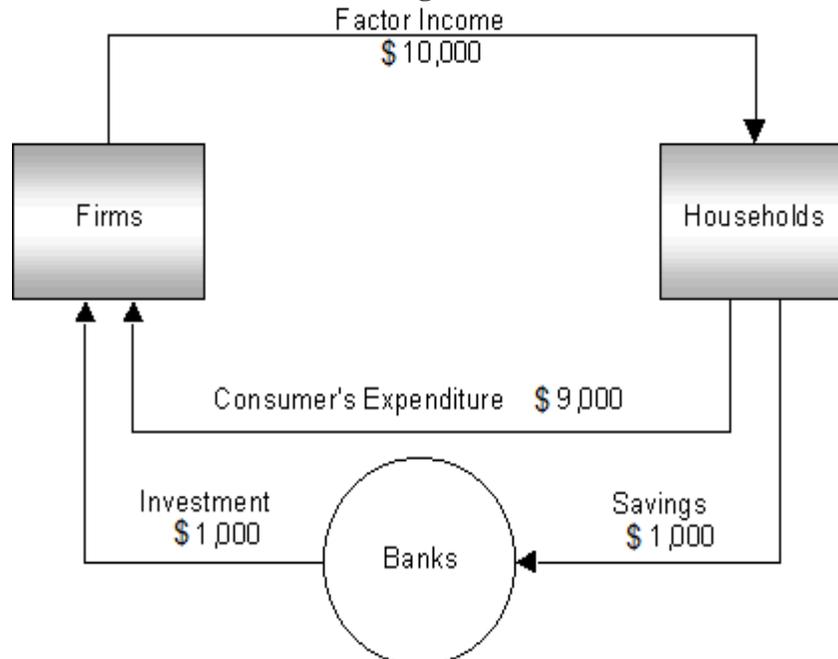
$$\frac{\text{Proportional Change in Quantity of Employment}}{\text{Proportional Change in Wages}} \quad (2)$$

Thus there are two factors to take cognizance of in the examination of the demand for labour. Firstly there is a differentiation in the notions of the quantity of labour demanded and the quantity of employment, relative to a differentiation in the change in the wage rate and the change in wages respectively. Secondly, by recognizing the differences in the forms of labour, employment, the wage rate and the change in wages, there is a realisation of the dynamic role that labor plays on the whole – particularly by way of wage negotiations.

Essentially, what has been illustrated above is the Elasticity of Demand for Labour on a micro occupational basis (Harris, 1935). And this is but one of several ways by which Pigou differs from Keynes. That is, Pigou as the last of the great (neo) classical economist dealt with individual aspects of the economy. Arguably, Keynes' departure was exemplified by his macro-economic study of the economy on the whole. Indeed, classical economists studied economic systems in terms of innumerable decision making units – e.g., producers' equilibrium and consumers' equilibrium. Keynes, however, offered a "new economics" whereby aggregate supply and demand would be modeled. To his credit, Keynes had developed new tools and techniques for economic analysis. However, there are suggestions from the likes of Mankiw and Becker that a Pigouvian approach would be more suitable to address the present day's financial ailments lingering from the past century. After all, it was Pigou who first began to speak of market failures and the failure of free enterprises and competitive markets. At best, he was an economist who had the foresight to understand and profess that actions in one part of an economy could and would have an adverse effect elsewhere (Cassidy, 2009). Consider the following illustration of the disintermediation of capital when consumers households save or withhold capital for some reason or another:

When consumers save 10% of their income, the result will be that the firm's receipts will fall by the same proportion of 10%. Profits will fall and the firm will tend to react by cutting output and reducing labour input. Income and earnings of the firm declines. Importantly, banks play a pivotal role by channelling savings to firms through the banking system.

Figure 1
Investment and Savings Distribution Model



Source: (*Theory of Employment, n.d.*)

Although Pigou may not have discussed the failure of banking systems, as intermediaries for the efficient allocation of capital savings held by households and in light of sub-prime mortgages, he commented in 1929 that: The occurrence of business failures will be widespread relative to the availability of bank loans. With this in mind, Pigou was somewhat prophetic. If, therefore, the simplest of distinctions can be drawn between Pigou and Keynes it is this: While Keynes was an advocate of free market enterprise, Pigou's overall belief was that government interventions were necessary – especially when free competitive markets went awry – e.g., toxicity resulting from sub-prime mortgages. And as noted earlier, Keynes pioneered macroeconomics, while Pigou upheld a micro approach to explain the workings of economies. The key argument here and now is that analysis on a micro level can serve to understand if not mitigate unemployment in these modern times. The study and application of approaches to economics, it seems, has come full circle. At this time there is a need for the application of Pigouvian solutions and interventions. Arguably, there is a need to revisit (neo) classical economics to explain this great recession on a micro level with purposeful emphasis on welfare economics (Horwitz, 2009).

WELFARE ECONOMICS AND UNEMPLOYMENT

Welfare economics aims to evaluate economic policies in terms of their effects on the well-being of society. Economists such as Vilfredo Pareto (1848-1923), Friedrich Hayek (1899-1982) and Amartya Sen (1933) advanced varying theories on the matter of wealth distribution. Interestingly, Pigou seems to fit somewhere between Pareto and Hayek. While Pareto would have been Pigou's earliest predecessor, it appears less likely the Pareto would have been the earliest influence on Pigou's welfare tendencies. Rather, Pigou's secondary study of philosophy, ethics and subsequent tuition under Alfred Marshall led to his tenure as a Professor of Political

Economy. Moreover, Pigou at first was a history scholar. He, perhaps more than others, can be attributed for purposefully advancing the notion that economics should be used as a tool for improving human society – exploring ways in which government interventions could have positive socio-economic effects (O'Donnell, 2009).

Pigou's *Theory of Unemployment* pointed out that as long as wage and price flexibility existed, the value of assets and prices fixed in terms of money will rise as wages fall. Consequently, savings will decrease and consumption will increase. Known as the "Pigou Effect," this countered Keynes' *under-employment equilibrium* by noting that a state of disequilibrium would exist characterized by inflexible wages and prices. As a present day application of the notion of labor inflexibility, Abedian (2011) noted that ailments in South Africa's manufacturing sector are a result of labour rigidity – e.g., inflexibility in labour practices and wage negotiations (Kingdon & Knight, 2005).

Indeed, the underlying principle of Pigou's Theory of Unemployment is that a fall in real wages due to a rise in prices, without any change in money-wages, causes the supply of available labour to fall. Undoubtedly, Keynes (1957) found this supposition to be unacceptable, noting that it cannot be expected that those who are unemployed, while willing to work at a current wage level, would withdraw from the labour market in the face of even the smallest rise in the cost of living. While Keynes was adamantly against Pigou's supposition, what he perhaps overlooked was Pigou's aim of modeling the actual or some of the possible actions of labour. It is through Pigou that the complexity of labour and for that matter unemployment comes to be understood by defining:

- Structural Unemployment: In periods of slow growth, the entire labour force cannot be absorbed to participate in productive employment.
- Seasonal Unemployment: Select productive activity occurs seasonally, such that workers become unemployed during slack periods – as in the case of the agricultural sector.
- Frictional Unemployment: Because people are free to work whenever they desire and because industries decline, perfect mobility entails shifting demand for labour, workers learning new skills and businesses relocating to reduce overhead (Vaknin, 2004).
- Cyclical Unemployment: Unemployment results from deficient aggregate demand.
- Disguised Unemployment: Unemployment is due to minimal slow growth in capital stock, such that there is a disparity between population growth and the capacity (of industries) to offer productive employment.

As illustrated earlier in formulae (1) and (2), Pigou's contribution towards refining those definitions is his empirically modeling the behavior of labor to reflect its dynamic state – i.e., derivations on elasticity of demand and models for employment in particular occupations. The premise here is that while the importance of aggregate macro-analysis remains, due to the recent failures in competitive markets, it becomes necessary to examine the "innumerable" micro decisions that will facilitate a solution to the present world economic crisis - starting with labour, unemployment and wages. Unknowingly, or perhaps knowingly, Keynes offered some suggestions in his response to Pigou (Leeson & Schiffman, n.d.). As suggestions for increasing

employment, they arise out of Keynes' attack upon Classical Theory of Employment and Pigou's Theory of Unemployment.

INCREASING EMPLOYMENT AND PIGOUVIAN POLICIES

Earlier in this work it was suggested that Keynes had forever tied himself to his predecessor and contemporary A.C. Pigou. Indeed, Pigou would be considered to be Keynes' predecessor, recognizing and respecting Keynes as a gifted economist studying probability. Exhibiting his brilliance and departure from neo-classical economics by placing emphasis on aggregate demand, Keynes soon came to become a contemporary and great economist in his own right – arguably, at the expense of Pigou and his social welfare approach to econometrics. In response to Pigou's upholding the two (2) fundamental postulates of the classical theory of employment, Keynes offered four (4) possible means for increasing employment:

- Firstly, there is a recommendation that firms should be foresighted looking with the objective of diminishing frictional unemployment. Notably, Keynes wrote of “diminishing” frictional unemployment. Here, it is suggested that even in this period of economic recession there is a need to understand the nuances of frictional unemployment and that firms should be forward looking in anticipation of labour mobility and shifts in the demand for labour.
- Secondly, firms should decrease marginal disutility of labour, with the objective of “diminishing” voluntary unemployment. As above, diminishing implies a host of actions that can be undertaken – to be forward looking, proactive and to anticipate levels of unemployment. Implicitly, firms usually plan for levels of employment or the quantity of human capital required for production; firms should begin to think in terms of the levels of unemployment resulting from operations, scaling down, or the absence of operations. Firms should plan to address workers motivations for resorting to voluntary unemployment.
- Thirdly, firms should increase the marginal physical productivity of labour – i.e., the increase in productivity resulting from the use of an additional unit of labour – especially in wage goods industries. Simply, labor as an input must be used efficiently, maximized and optimized relative to production outputs.
- Finally, firms when possible should increase the price of non-wage goods, comparable to the price of wage goods, relative to the expenditure of non-wage earners from wage goods to non-wage goods. Simply, the cost of labour must be efficiently priced into the production of wage goods.

Keynes seems to generally suggest that firms should take greater responsibility for mitigating unemployment. Here, it is indeed an assumption and a proposition. It, nevertheless, is an attempt to effect current wages, the demand for labour and existing money wages. While, Pigou would argue for wage and labour flexibility, Keynes would argue that, as an example, the ability or process of wage bargaining cannot bring the level of money wages into conformity with the marginal disutility of the volume of employment. Essentially, Pigou and Keynes

differed on how labour responds and how money wages can be affected. Yet, Keynes' four (4) means of increasing employment was in direct response to Pigou and Classical Theory of Employment (Keynes, 1957). It, therefore, would be short sighted to view Keynes' response as reactionary or even ridicule. Rather, it should be viewed as his expanding and building upon Pigou's view that real wages can be affected to induce a volume or level of labour while moving towards full employment.

CONCLUSION AND IMPLICATIONS FOR PUBLIC POLICY

While this study had set out to support and advocate for a resurgence of Pigouvian neo-classical economics aimed at maximizing social welfare, it could not be helped but to tie the discussion to Keynesian economics, and for that matter the man himself. Keynes had come to succession upon, arguably, attacking classical theories of employment. The transition from classical, to neo-classical, through to embracing aggregate macro-economics was to the detriment of Pigou the economist and the man himself. Yet, much of what he professed has merit in this early 21st century, some fifty years after his passing.

Looking deep into the "Pigou Effect" that models the propensity for rising wages, falling prices and consumption, that government intervention, tax policy and strategic subsidies, for example, should be used to address market failures in a competitive environment makes sense. Policies to internalize externalities had their merits then and certainly have their merits in this period of great recession.

Taxing the rich to pay for health care reform is Pigouvian. Any step taken to address global warming will be Pigouvian and policies to mitigate externalities likewise can only be characterized as Pigouvian. Steps taken to deal with financial systems and banking systems that have failed to minimize risk will be Pigouvian. A carbon tax is essentially Pigouvian. Raising capital requirements for banks is Pigouvian. Extending the payroll tax and extending unemployment benefits are Pigouvian interventions. Keynes would argue that in the wake of an economic slump, the economy will eventually recover on its own. A recovery is long overdue. The expectation is that government should intervene to create jobs and address negative externalities through social-welfare policies. Just as Keynesian Economics played a role in analyzing competitive free market economies, Pigouvian Economics has a role to play in this period of stagnate economic growth.

REFERENCES

- Abedian, I. (2011). *Entrepreneurs Ageing and Dying*. Johannesburg: Mail & Guardian.
- Cassidy, J. (2009). An Economist's Invisible Hand. *The Wall Street Journal*, Retrieved December 16, 2011, from <http://online.wsj.com/article/SB10001424052748704204304574545671352424680.html>.
- Chan-Lau, J.A. (2010). Financial Crisis, Interconnectedness and Regulatory Capital. *Lombard Street*, 2(1). Retrieved March 30, 2011, from <http://www.finreg21.com/lombard-street/financial-crisis-interconnectedness-and-regulatory-capital>.
- Harris, S. E. (1935). Professor Pigou's Theory of Unemployment. *Quarterly Journal of Economics*, 49(2), 286-324.

- Hodgson, G. (2011). Reforming Economics After the Financial Crisis. *Global Policy* 2(2), 190-195. doi:10.1111/j.1758-5899.2011.00087.x
- Hoff, K., & Stiglitz, J.E. (1999). *Modern Economic Theory and Development*. Paper presented at the Northeast Universities Development Conference at Harvard University, Cambridge, MA.
- Horwitz, S. (2009). *The Microeconomic Foundations of Macroeconomic Disorder: An Austrian Perspective of the Great Recession of 2008*. Department of Economics, St. Lawrence University.
- Keynes, J.M. (1936). *The General Theory of Employment, Interest and Money*. London: Macmillan.
- Keynes, J. M. (1957). *The General Theory of Employment, Interest and Money*. London: Macmillan.
- Kingdon, G.G., & Knight, J. (2005). *How Flexible Are Wages in Response to Local Unemployment in South Africa?* Centre for the Study of African Economies, Department of Economics, University of Oxford.
- Leeson, R., & Schiffman, D. (n.d.). *A Reassessment of Pigou's Theory of Unemployment*. Hoover Institution, University of Notre Dame Australia and the Ariel University Center.
- O'Donnell, M. (2009). *Famous Economist and the Current Recession: A.C. Pigou*. Blogspot. Retrieved December 26, 2011, from <http://culturalcolorado.blogspot.com/2009/08/famous-economists-and-current-recession.html>.
- Pigou, A.C. (1933). *The Theory of Unemployment*. London: Macmillan.
- Pilling, G. (1987). *The Crisis of Keynesian Economics: A Marxist View*. London: Croom Helm.
- Shenoy, S.R. (2009). *A Tiger by the Tail: The Keynesian Legacy of Inflation*. A Forty Years' Commentary on Keynesianism by Hayek. London: The Institute of Economic Affairs.
- Takami, N. (2007). *Pigou's Theory of Business Cycle as an Inquiry Into Unemployment: On the Relative Effects of the Gold Standard and the Wage Rigidity in the Twenties* Discussion Paper 07-33. Osaka: Graduate School of Economics and Osaka School of International Public Policy.
- Theory of Unemployment. (n.d.). *Study Notes for M.A. Economics University of Karachi*. Retrieved December 16, 2011, from http://maeconomics.webs.com/national/theory_of_employment.htm.

Vaknin, S. (2004). *To Grow Out Of Unemployment*. Retrieved March 30, 2011, from http://www.gorgelink.org/freebooks/vaknin/branded/Business_And_Finance_287.pdf.

About the Author:

Darrell Myrick is an Associate Professor of Public Administration and Management at the University of South Africa. He is a PhD graduate of the University of Pretoria's School of Public Management and Administration. He holds an MBA from the University of New Haven, Connecticut, an MPA from New York University (NYU) Wagner School of Public Service and a BBA from Pace University in New York City. He has served as a Sr. Researcher in Monitoring & Evaluation in one of South Africa's pre-dominant public entities involved in eradicating poverty, creating jobs and insuring food security. He has authored and presented conference papers on Monitoring and Evaluation, Performance Management, The New Partnership for Africa's Development (NEPAD), Local Economic Development (LED), Marxism and Class Mobility, Civil Society and Policy Engagement.