## An econometric analysis of the short run philips curve essay



In this paper, we want to test the negative relationship between inflation and unemployment for the United State It turn out that the Phillips curve of United State is still relevant in today context. Keywords: Phillips Curve, adaptive expectations, rational expectations, instrumentals variable, Inverses Phillips Curve. The author is a Research Scholar in the Department of Economics, National University of Singapore. The author would like to

thank Lee Beaching, Gogh Chunked, and Lee Kook How for their valuable time spent on doing this initial research.

The first draft was completed in October 2001 and some minor revisions have been made on May 2004. The author also would like to acknowledge supports from Dry. Anthony ATA See Ann and the NUNS Central Library. The responsibility for any errors or shortcomings remains ours. The views expressed herein is totally mine and not the Department of Economics, NUNS. I Page 1 Introduction The shape of the Phillips curve is central in conducting monetary policies. Many empirical models of the Phillips curve for US are heavily influenced by the work of Gordon (1970, 1975, 1977, 1983, and 1997).

His preferred Phillips curve specification is linear with backward looking inflation expectation . He allows for a kinked functional form and finds no significant evidence of non-linearity and therefore conclude that Philip curve estimated for US. In this paper, the expectation augmented Phillips curve will be reconsidered. Focus is on investigating the relationship between the inflation rate and unemployment in a linear setting. The The paper is organized as follows. After some exposition of historical and theoretical

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aground in section 2, the simple adaptive model where are introduced in section 3.

Next, we use the rational expectation hypothesis to refine the expectation augmented Phillips curve in our next section. Then in the last section, we use the oil price shocks as the Instrumental Variable (V) for inflation to measure the negative relation between inflation and unemployment rate (in term of inverse Phillips curve). I Page 2 2. Background In his seminal paper, Phillips found a negative relationship between unemployment and wage inflation in UK for he time frame of 1861-1957. Subsequent research also found a similar relationship between unemployment and price inflation.

This relationship has since been known as the Phillips curve and at that time there was strong empirical support for a stable inflation-unemployment trade-off. In the early sass, the first empirical failures of the Phillips curve occurred when both inflation and unemployment increased simultaneously, primary due to the oil-price shocks. The critique prompted the formulation of the expectation- augmented Phillips curve. According to this specification no policy can permanently lower unemployment below its natural rate unless expectations are highly irrational.

The Phillips curve is regaining interest after a period in neglect and there has been considerable theoretical work suggesting a non-linear relationship between inflation and unemployment. This is so called " new Philips curve". However, the shape of nonlinearity is ambiguous since the different theories yield different non-linear relationships. I Page 3 2. 2. Data The time-series data are seasonally adjusted guarterly data covering from the Errol 4 Nine Notation measure uses Is annual changes In c the inflation expectations are

given by measure of expected inflation over the next year held at period.