WOULDN'T IT BE NICE (TO HAVE A BIT MORE INFLATION)?

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Central bankers have in their hands policy tools that allow them to optimize society's wellbeing. This paper argues that the latter is best captured by the quality of music and then provides estimates based on a reduced-form non-linear smoother as well as a quadratic fit that suggest the Federal Reserve should aim for a rate around 6.2%, way above the holy-grail target of 2%.

Introduction

Many central banks around the world have been targeting inflation for quite some years now, even claiming the strategy has been successful (cite needed;). But are the holy-grail inflation targets between 1.5% and 2.5% simply the best?

Fundamentalists, who use micro-founded New-Keynesian models that minimize utility-based welfare loss functions, consistently find optimal inflation rates below 2% (see Billi and Kahn 2008). But it is not clear utility-based welfare loss functions really capture the wellbeing of agents. Here I argue that a measure of music quality should do the job better.

First and foremost, listening to moving music causes the brain to release dopamine, a feel-good chemical that gives you sweet emotions and lust for life (Menon and Levitin 2005). Hence, maximizing music quality maximises the feel-goodness of the population. Moreover, previous research has shown that good singers can increase the efficiency of bargaining (Oxoby 2009) and that listening to music reduces stress (Holland 2005), creates good vibrations that increases productivity (Lesiuk 2005), results in better driving (Wiesenthal et al. 2000) and makes people behave more altruistically and come together (North et al. 2003). Music quality's influence on wellbeing may be far more wide-ranging than economists realize. Finding the optimal inflation rate should thus be an empirical exercise aimed at identifying the rate of inflation associated with periods of inspired music.

Inflation may affect music quality through various mechanisms. By creating uncertainty about the future value of money, inflation may encourage non-monetary capital projects, such as music groups, which in turn increase music quality through competition effects. It may also encourage a better allocation of talent away from the banking sector, which relies on the value of money, and towards the arts sector. Too high inflation may decrease music quality if musicians perceive the nominal price increase as rendering their instruments unaffordable, and thus have them stop making music. The rest of the paper will focus on estimating the optimal inflation rate for the US and the UK.

Data

To study the relationship between music quality and inflation I put together a dataset of high-quality albums derived from Acclaimed Music. In the words of Waldfogel (2011), the deadweight-loss-of-Christmas guy, Acclaimed Music is "a site operated by a Swedish statistician who synthesizes over 100 different professional music critics' rankings to produce overall rankings of the top 3000 albums of all time". I kept the top 1000 albums to focus on top quality. I then matched a nationality to each album manually. This took a while[1]. The ten best albums of all time are given in table 1.

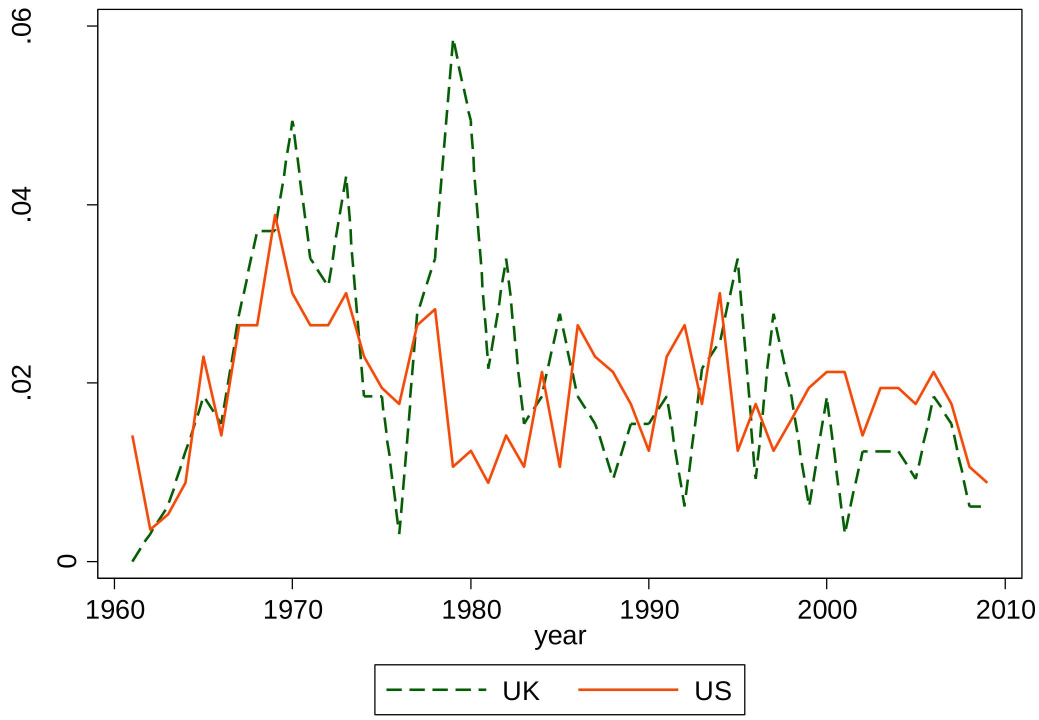
[1] You can download my data here: https://spreadsheets.google.com/spreadsheet/pub?hl=en_US&hl=en_US&key=0AoER5mPtjqBPdE9PZVU5T0RaVWN0TTdVTG9vSXcyaWc&single=true&gid=0&output=html

Table 1. The ten best albums of all time (as of 28 Nov 2010)

Artist	Album	Year	Rank	Country
The Beach Boys	Pet Sounds	1966	1	US
The Beatles	Revolver	1966	2	UK
Nirvana	Nevermind	1991	3	US
The Velvet Underground & Nico	The Velvet Underground & Nico	1967	4	US
The Beatles	Sgt. Pepper's Lonely Hearts Club Band	1967	5	UK
Marvin Gaye	What's Going On	1971	6	US
Bob Dylan	Blonde on Blonde	1966	7	US
The Rolling Stones	Exile on Main St.	1972	8	UK
The Clash	London Calling	1979	9	UK
Sex Pistols	Never Mind the Bollocks - Here's the Sex Pistols	1977	10	UK

Most albums are from the US (56.7%) and the UK (32.4%). Hence I focus on these two countries in my empirical analysis. I measure music quality in a given year as the share of acclaimed albums that came out that year. The US and UK music-quality cycles are somewhat similar until the mid-seventies, when great UK albums started popping while US citizens needed earplugs to survive the 80s (figure 1). Globally, i.e. in the US and the UK, the most amazing years were between 1967 and 1971, though the UK peaked at the end of the 70s, with great albums by David Bowie and Dire Straits.

Figure 1. The US and UK music cycles



Empirical analysis

For both the US and the UK I start by plotting inflation, taken from the World Bank's World Development Indicators, against music quality for each year between 1960 and 2009. I then fit the data points with a quadratic model and a non-parametric locally-weighted-least-squares smoother. Both models suggest an inverted-U-shaped relationship between inflation and music quality in both countries (figures 2a and 2b).

The significance of the quadratic function (see Table 2) allows me to estimate how much inflation is too much. I estimate the turning point separately for both countries. While the optimal inflation for the UK is around 13.7%, the US' is around 6.62%.

Figure 2a. Music quality vs. inflation in the US

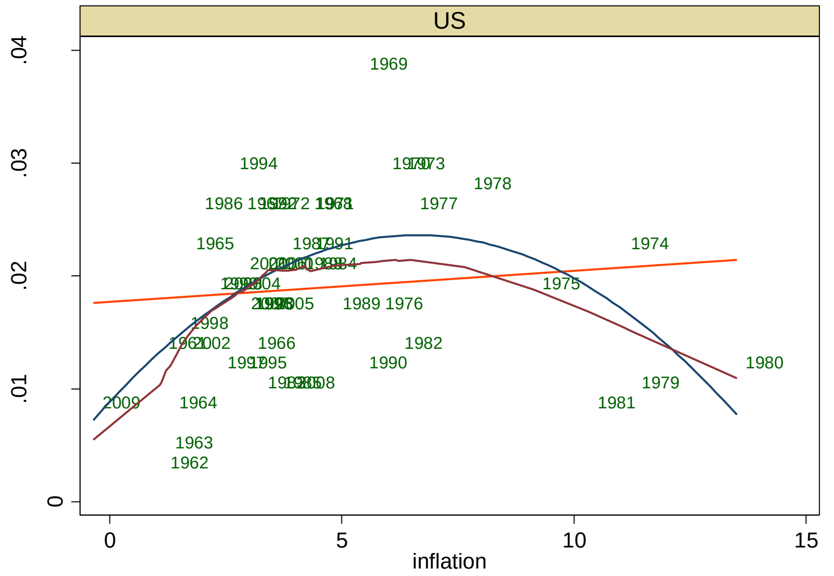


Figure 2b. **Music quality vs. inflation in the UK**

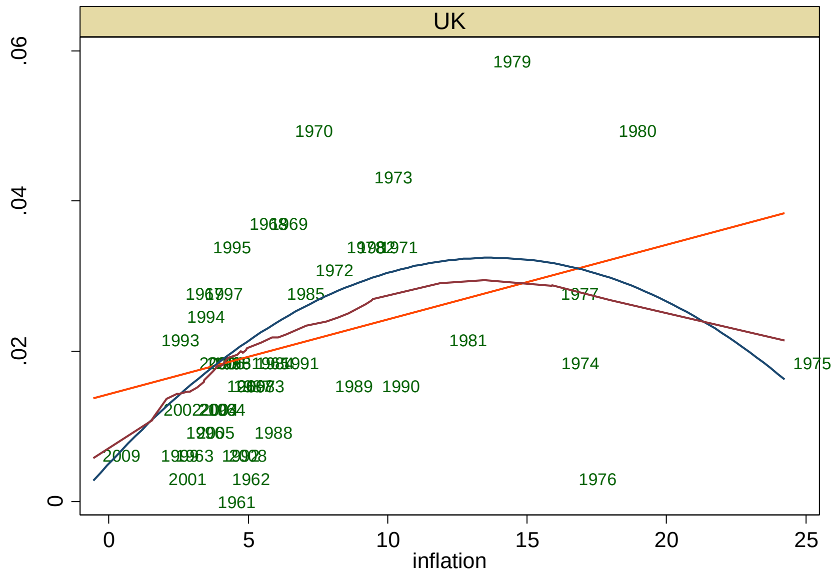


Table 2. The economic determinants of music quality

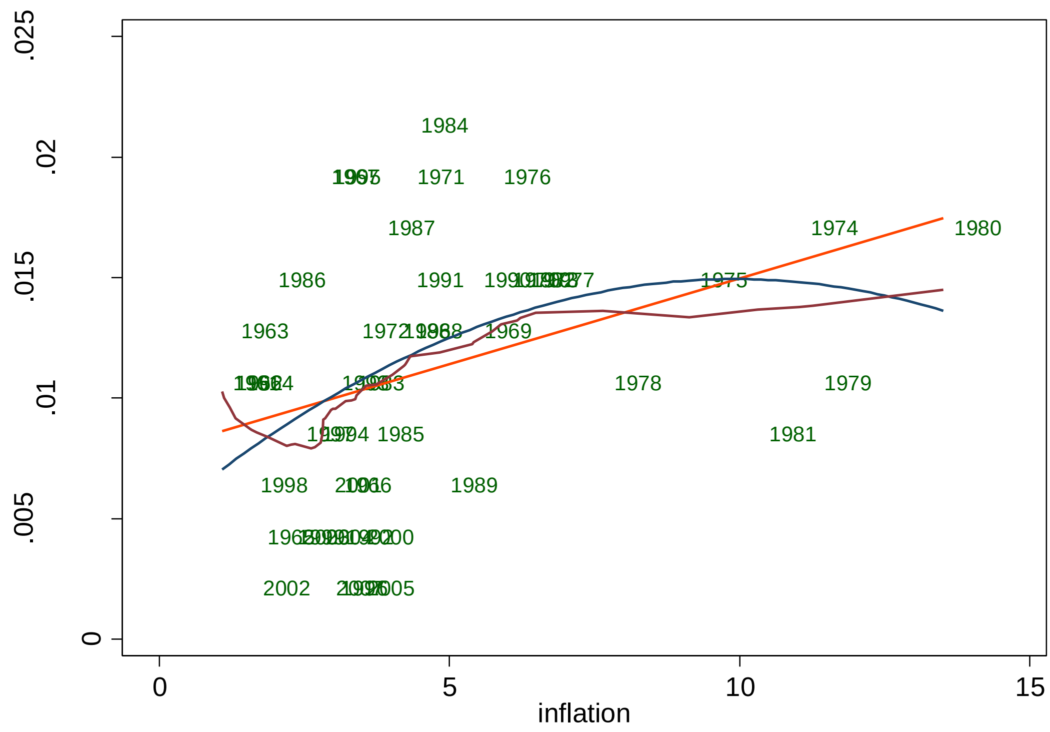
	UK	US
GDP growth	0.214**	-0.0304
	(0.101)	(0.0518)
inflation	0.00227**	0.00483***
	(0.000898)	(0.00107)
inflation × inflation	-9.64e-05***	-0.000322***
	(3.23e-05)	(6.82e-05)
Constant	-0.000289	0.00804***
Observations	49	59
R-squared	0.366	0.291

Dependant variable is share of amazing albums. Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Robustness check – The quality of movies

As movies also cause the release of dopamine, I check whether maximizing movie, rather than music, quality would lead to a different inflation target. I use the "They Shoot Pictures, Don't They?" database of the 1000 greatest films of all times, as voted by 2,138 critics, filmmakers, reviewers, scholars and other likely film types. 468 of them, released between 1915 and 2007, are from the US. I focus on movies released after 1940 to enhance comparability. This leaves me with 387 amazing US movies (and too few UK ones). I find an optimal inflation at 9.9% (figure 4).

Figure 4. Movie quality vs. inflation in the US



Forecasting music quality

Using the IMF's forecast on inflation until 2015 I am able to forecast the quality of music until 2015 using the model estimated above which predicts around 30% of the variance in music quality (table 2). The forecast, starting in 2010, should be interpreted with caution. The picture is not rosy for the UK (figure 5b). With the financial crisis seem to have come the Great Music Collapse, with no great albums in site for the next five years. The Bank of England, if it wants to avoid anarchy in the UK, should seriously consider raising its inflation target.

Conclusions

Central banks may have the power to maximize wellbeing by setting the inflation target appropriately. With the crisis came suggestions that inflation around 4% may be better as it gives more room to cut nominal rates in times of crisis, it lowers unemployment, and it makes debt-adjustment easier (Blanchard et al. 2010, Krugman 2010, Rogoff 2008). Their claims are now supported by further empirical evidence that higher inflation is optimal for society as it results in better music. Central bankers should take note; too-low inflation will tear us apart.

Figure 5a. US music quality forecast

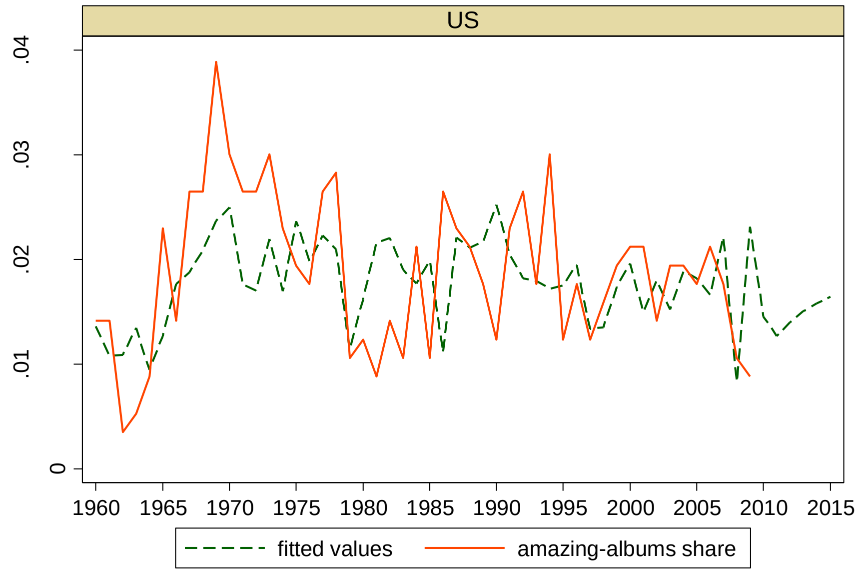
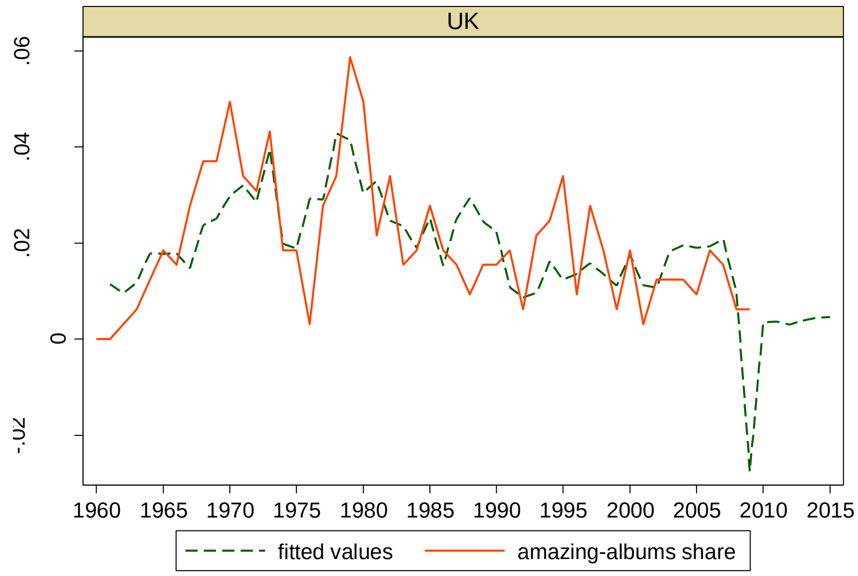


Figure 5b. UK music quality forecast



Acknowledgments

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