See no inflation, hear no inflation: how the media influences inflation expectations in South Africa

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Abstract

Inflation expectations play a central role in the modern understanding of inflation. To manage inflation a central bank pays close attention to these expectations and their communication strategy is a critical to this end. However, the general public (as distinct from financial analysts) are rationally inattentive to the communication of the South African Reserve Bank. To lower the costs of collecting and processing information about monetary policy, the general public relies on the media (Reid and du Plessis, 2011). However, Reid and du Plessis (2011) found that the South African media does not interpret and present monetary policy critically for the South African public. This paper extends their work to consider the response of the South African public to monetary policy information as presented in the media. More specifically, the paper considers how the inflation expectations of the general public are influenced by media reports on monetary policy. Do the general public treat the media as an independent and trustworthy source of specialist financial information? The paper also considers whether the sensitivity of the general public to the media reports varies under different macroeconomic conditions.

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Keywords: central bank communication, inflation expectation, inattentive general public monetary policy transmission mechanism, transparent monetary policy.

1. INTRODUCTION

Inflation expectations play a central role in the modern understanding of inflation. To manage inflation a central bank pays close attention to these expectations and their communication strategy is a critical to this end. In a practical sense, the primary aim of the communication of

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the South African Reserve Bank is (1) for this communication to reach the intended audience and (2) for this communication to be understood and perceived as trustworthy.

However, the general public (as distinct from financial analysts) are rationally inattentive to the communication of the South African Reserve Bank (SARB). To fully understand the monetary policy of the SARB requires specialised financial and economic training and it is rational for the general public to judge the time and effort required to collect and process the primary monetary policy communication of the SARB as unjustified (Birchler and Bütler, 2007; Della Vigna, 2009). Most of them focus their attention on their own careers and choose to lower the costs of collecting and processing information about monetary policy by relying on the media to both summarise and translate the communication of the SARB for the general public (Reid and du Plessis, 2011).

The recognition of this role played by the media lead Reid and Du Plessis (2011) to conclude that the media is crucial to the effectiveness of the monetary policy transmission mechanism. They systematically investigate the process by which the SARB's communication is transformed into news, since this will impact on the inflation expectations of the general public (potentially the source of much of South Africa's wage and price pressures). The results reflect a lack of critical assessment of monetary policy by the media relative to the ECB (Berger et al, 2011) in that, GDP:Avg and outside band, seemed to have a limited impact on ASMT, although being outside the inflation target band did increase COV. These economic variables were far outweighed by what appeared to be an uncritical response to adjustments of the repo rate (particularly increases). This limits the degree to which the SARB is held accountable to the public against its stated objectives. Finally, inter-meeting communication does not seem to have had much impact, suggesting that the SARB is not making effective use of inter-meeting communication to influence the perceptions of the Bank by the media and public. There is scope for the SARB to use communication to consciously engage with the media, in order to make use of this opportunity to contribute to the level of economic evaluation undertaken by stakeholders and to build credibility.

Although this research does establish that the South African media does not interpret and present monetary policy critically for the South African public, it does not directly examine the response of the general public to the media reports. This paper extends the work of Reid and Du Plessis (2011) in that it considers the response of the South African public to monetary policy information as presented in the media. More specifically, the paper considers how the inflation expectations of the general public are influenced by media reports on monetary policy. If the media is found to have a substantial influence on the inflation expectations of the general public this would justify the recognition of the role of the media in transmitting the SARB's communication to its ultimate audience, and substantiate the recommendation by Reid and du Plessis (2011) that there is scope for the conscious participation of the Bank in the public discussion on monetary policy.

Reid and Du Plessis were careful to emphasise that they recognise that the South African monetary authorities already use communication extensively, but that there is for the Bank to 'view the discussion from the audience's perspective, as portrayed by the media' and to deliberately 'tailor its communication to suit this segment of the audience' (2011: 4). This does not imply manipulation of the audience, but is rather in line with McCloskey's assertion that 'Using scientific language wide awake requires attention to the other minds present when you speak' (1998: xix); and the purpose of rhetoric should be to 'engage in mutual enquiry' rather than to 'talk someone else into a preconceived idea' (1998: xx).

In order to explore the extent to which media reports on monetary policy influence the inflation expectations of the general public, a number of questions will be considered. Do the general public treat the media as an independent and trustworthy source of specialist financial information and therefore adjust their expectations in response to what they read? What components of the media report (for example, macroeconomic data, views of financial analysts, the SARB, indications of future policy inclination, or an assessment of the most recent policy decision) influence the inflation expectations of the general public the most? Are the inflation expectations of the general public affected equally by good and bad news? Do the views of the general public converge on those of the financial analysts when there is more reporting on macroeconomic data, or the views of the newspaper, the SARB or financial analysts about forecasted inflation? Finally, the *paper considers the sensitivity of the general public to the media reports varies under different macroeconomic conditions*.

2. THE STRATEGIC ROLE OF THE MEDIA IN THE MONETARY POLICY TRANSMISSION MECHANISM

Reid and du Plessis (2011) suggest that the communication that the inattentive general public ultimately receives is the outcome of strategic interaction between the SARB (the sender), the media, professional economists quoted in the media and the inattentive general public (the ultimate recipients of the communication).

2.1. DOES THE MEDIA MATTER?

Agenda-setting research suggests that 'the media does matter' and that it responds to incentives in the production of 'news' (it is not a passive conduit of communication). A central bank (the senders) should therefore monitor the role of the media in transmitting its communication to the general public (the receiver) in order to improve the effectiveness of its monetary policy. Given the technical skills required to understand and evaluate monetary policy, the media are also influenced by the analyses of professional economists.

It is essentially this question that this paper aims to address directly.

2.2. THE INFLATION EXPECTATIONS OF THE INATTENTIVE GENERAL PUBLIC

The general public updates their subjective expectations by 1) receiving a signal and 2) processing the information. General public needs to pay attention to the news (perceive it as important) and be convinced by the news in order for this to affect their inflation expectations.

Akerlof and Dickens (1982): Cognitive dissonance – 1) people have preferences over states of the world and beliefs about states of the world 2) they have some control over their beliefs (choose sources that confirm their beliefs) and beliefs once chosen persist over time.

Not clear whether general public being slow to update expectations to that expressed by the media is due to lack of attention or them not being convinced by what they've read

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3. EMPIRICAL METHOD

Both objective and subjective approaches to creating indices have been used in the literature, but the subjective approach was preferred here. Hermeneutic theory and textual analysis (Rosa and Verga, 2007) emphasise that communication is subjective, and that its success depends jointly on the content of the message sent and its interpretation by the recipient. Hermeneutic theory also highlights the dynamic nature of language, which seems relevant for the analysis of the SARB during a period where, as a young inflation targeter, it was learning to use communication as a monetary policy tool. To limit the bias introduced by this subjectivity, two researchers independently read each media article and assigned an index value. They then discussed each article, and where their scores differed they agreed on a consensus index value.

3.1. DEPENDANT VARIABLE:

Options:

[BER Infl Exp – Core infl] => core infl is current inflation and infl expectations are future oriented. SO the difference between the two represents the pressure that inflation expectations are putting on actual inflation. NB DIRECTION of PRESSURE on actual inflation. NOTE: pressure could be downward and yet both measures could be above the inflation target (ie both could still be high).

Change in BEr infl exp => ie adjustment of inflation expectations over time

[BER Infl Exp – Inflation Target] => deviation of inflation expectations from the inflation target

Or as Lamla and Lein (2008) do: Gap between FAs and PSs ie the deviation of the inflation expectations of the price setters from the rational forecasts (where the inflation expectations of the financial analysts are viewed as close to rational).

Questions:

What does this measure give us that plane inflation expectations do not?

Most of the general public don't even know what core inflation is (either the definition or the actual level at that time) so if we use this we are not asking a question about inflation expectations being anchored specifically…

Would inflation expectations relative to the inflation target not be a more interesting dependant variable? Ie the degree to which the inflation expectations are not anchored?

3.2. EXPLANATORY VARIABLES:

- **Construction of the indices**

The aim of creating the indices was to capture the elements of media articles in the week following each MPC statement, which could potentially influence the inflation expectations of the general public. A range of factors were identified as being relevant to the formation of inflation expectations and were used to capture the information content being communicated by each media article. These factors were used in this disaggregated form (rather than forming a single aggregated index) in order to accommodate the wide variation that can occur in communication that would possibly reveal nuanced reactions of the general public to the media articles.

Relevant newspaper reports were collected from the week following each MPC (monetary policy committee) meeting. Media reports for the entire sample period of January 2000 to September 2009 were collected via an electronic archive of media clippings (SAMedia), compiled at the University of the Free State. Careful attention was paid to ensure that the leading South African newspapers (by circulation numbers) were represented in the media clippings collected, and cartoons were also included, recognising their role in opinion formation. The Daily Sun (the country's leading daily newspaper by circulation numbers) and the Sunday Sun (a weekly newspaper with substantial readership) were not represented in the SAMedia archive, so these were sourced directly from the compact storage archives of the Media24 central library at the company's head office . Table AI in the Appendix records findings for the main newspapers included in the study and a few details of each.

Each article or cartoon was read and evaluated independently by two researchers to allow the construction of the two indices.

The creation of the indices are discussed in more detail in the appendix, but the following is a brief description of ###. The media communication in each media article was classified according to the following elements:

- **Views of the media about future inflation**

This variable captured whether the journalist writing the media article on behalf of the paper itself expressed any view on the likely future path of inflation. There are six categories that were used to standardize such communication: inflation will increase, decrease or remain neutral; inflation is expected to increase temporarily and then decrease (a hump shaped path), or inflation is expected to decrease temporarily and then increase (a trough shaped path); and any mention of the inflation target range was noted.

- **Views of financial analysts about future inflation**

The views of the financial analysts quoted in the media article were classified according to the same six groupings.

- **Views of the South African Reserve Bank about future inflation**

The views of the South African Reserve Bank quoted in the media article were classified according to the same six groupings.

- **Macroeconomic Factors mentioned in the media article**

These factors are output, employment, exchange rate, wage pressures, producer price inflation, food price inflation, administrative prices, productivity, oil price, money supply, domestic demand, private credit extension, capacity utilisation, inflation expectations, US/Fed monetary policy, EU/ECB monetary policy, and balance of payments.

- **Indications of the likely future path of monetary policy**

The researchers searched for any indications of what the future path of monetary policy might be, and classified these as dovish, steady or hawkish.

- **The assessment of the most recent monetary policy decision by the media**

This part of the classification of the media reports relied on an index created in previous research by Reid and Du Plessis (2011) called the assessment index (ASMT). A qualitative index was created to capture the assessment of each monetary policy decision (ASMT). This measures the degree to which the media regards the SARB's monetary policy decision as appropriate, given the economic environment (it does not indicate the popularity of the decision). The index ranges from -2 (reflecting a strongly negative response of the publication to the policy decision) to 2 (reflecting strong approval of the decision).

3.3. EXPLORATORY DATA ANALYSIS

4. REGRESSION ANALYSIS

Do the general public treat the media as an independent and trustworthy source of specialist financial information and therefore adjust their expectations in response to what they read? What components of the media report (for example, macroeconomic data, views of financial analysts, the SARB, indications of future policy inclination, or an assessment of the most recent policy decision) influence the inflation expectations of the general public the most?

- Does the media affect inflation expectations? Ie do PSs view media as a trustworthy source of information (in addition to their experience of the state of the economy and the official inflation target)?

$$\pi_{t+12}^{e}=\alpha_t+\beta_1 \, MediaCOV_t+\beta_2 \, MediaASMT_t+\beta_3 \, Macro_t+\beta_4 \, Target+\varepsilon_t$$

Are the inflation expectations of the general public affected equally by good and bad news?

Do the views of the general public converge on those of the financial analysts when there is more reporting on macroeconomic data, or the views of the newspaper, the SARB or financial analysts about forecasted inflation?

$$DiffFA\&PS(\pi_{t+12}^{e})=\alpha_t+\beta_1 \, MediaCOV_t+\beta_2 \, MediaASMT_t+\beta_3 \, Macro_t+\beta_4 \, Target+\varepsilon_t$$

Where α_t represents social interaction

$MediaASMT_t$ represents media evaluation

$Macro_t$ represents macro variables that describe the present state of the economy at the time that the expectations are being formed eg GDP (or distance of GDP from sample trend), whether inflation is within the target, and the level of the interest rate.

NOTE: Should we add SARB communication (orig communication)?

Does the tone of the article (ASMT) influence inflation expectations? (Lamla and Lein, 2008)

Finally, the paper considers the sensitivity of the general public to the media reports varies under different macroeconomic conditions.

5. CONCLUSION

APPENDIX: PROTOCOL

<u>Independent variable – media:</u>

<u>Questions</u>:

- Does this media article influence the inflation expectations of the general public? Ie does the media influence the degree to which inflation expectations are anchored OR the pressure that the general public is putting on actual inflation?
- 2 hypotheses by Lamla and Lein (2008): (1) more media reporting brings consumers' forecasts closer to the rational forecast, and (2) the tone of media reporting impairs the accuracy of consumers' forecasts.

<u>Protocol</u>:

- Explicit judgement about <u>future</u> of inflation by the newspaper– Four dummy variables, three that capture just the direction of the change (*Increase inflation, Decrease inflation and Neutral inflation*) and the fourth that captures any mention of the official inflation target band (*Forecast*π*vs Target*).
- Views of the financial analysts about the future direction of inflation - Four dummy variables similar to those for the forecasts of inflation by the new paper (*Increase inflation, Decrease inflation, Neutral inflation and the Forecast vs Target*).
- Views of the SARB about the future direction of inflation - Four dummy variables similar to those for the forecasts of inflation by the new paper (Increase inflation, Decrease inflation, Neutral inflation and the Forecast vs Target).
    - Macroeconomic factors that are putting pressure on inflation. Dummy variables were created to record when the following macroeconomic factors were discussed in the media article: output growth (*<u>or</u>* the output gap), employment, the exchange rate, wage pressures, producer price index (PPI), food price inflation, administered prices, productivity, money supply, oil, domestic demand, private credit extension, capacity

utilisation, inflation expectations, US/Fed monetary policy, EU/ECB monetary policy and the balance of payments.

NOTE: These enter as dummy variables/count variables (ie give an idea of direction of pressure but not magnitude)

- Assessment of the appropriateness of the SARB's monetary policy decision (The qualitative index from Reid and du Plessis (2011) was simply updated to match this longer sample period), *assessment (ASMT)*. Do we trust the SARB to control inflation (keep it within the target band)? A qualitative index was created to capture the assessment of each monetary policy decision (ASMT)[1]. This measures the degree to which the media regards the SARB's monetary policy decision as appropriate, given the economic environment (it does not indicate the popularity of the decision). The index ranges from -2 (reflecting a strongly negative response of the publication to the policy decision) to 2 (reflecting strong approval of the decision).

[1] For further details about the construction of this index refer to Reid and Du Plessis (2011).

Date	News-paper	Explicit judgement about future inflation						Views of Fin analysts about future inflation						Views of the SARB about future inflation						Macro variables																		Policy inclination		
		Increase inflation	Decrease inflation	Neutral inflation	Hump	Trough	Forecast vs Target	Increase inflation	Decrease inflation	Neutral inflation	Hump	Trough	Forecast vs Target	Increase inflation	Decrease inflation	Neutral inflation	Hump	Trough	Forecast vs Target	Output	Employment	exchange rate	wage pressures	ppi	food price inflation	administrative prices	productivity	oil	money supply	Domestic demand	private credit extension	Capacity utilisation	inflation expectations	US/Fed	EU/ECB	BoP	Assessment	Hawkish	Steady	Dovish
2005/02/11	Sowetan															1					1				1	1			1	1	1						0			
2005/02/11	Business Day														1		1		1			1						1	1	1	1						0			1

		very neg	neg	neutral	pos	very pos							
Date	**News-paper**	**-2**	**-1**	**0**	**1**	**2**		**Head-line**	**Context-ualised**	**Explicit judgement**	**Tone**		**Comments**
2001/06/15	Business Day				x			0	poor	none	1		He describes the reactions of the public/markets and says that the rate decision was a complete surprise, but goes on to define Mboweni's credibility as an inflation fighter.

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