

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/371969218>

# A Critical Evaluation of Rules-Based Approaches: From Macrostability to Macroprudential Supervision: 1993–2023

Preprint · July 2023

DOI: 10.13140/RG.2.2.30487.55202/4

CITATIONS

0

READS

21

1 author:



Alfred Anate Mayaki

University of Essex

3 PUBLICATIONS 1 CITATION

SEE PROFILE

# A Critical Evaluation of Rules-Based Approaches: From Macrostability to Macroprudential Supervision: 1993-2023

By Alfred. A. Mayaki

## **Abstract**

In this paper, the author critically explores the 30-year interval between 1993-2023. By analysing the evidence found in the literature on conventions at the macro-level, the paper critiques the so-called rules-based approach of contemporary policy choice and questions the direction of its intended course. The paper uses the governance framework taken from the ISSB's Disclosure and Non-Financial Reporting approach to illustrate, comparatively. The paper then highlights how the Taylor model of inflation targeting creates uncertainty, due to its focus on rules in line with Orphanides (2001). This paper concludes by attempting to illustrate how by not internalising a risk-based approach (in favour of a rules-based approach) monetary policy has overlooked the main cause of recent inflationary pressures.

# Introduction

This paper proposes the following question to its reader: How has our understanding of the relationship between interest rates and inflation gradually changed over time (in the context of central bank policy) and how, indeed if at all, will our current understanding of macrostability help to augment the thinking we have accrued over the past 30 years in relation to the inflation targeting goal and other high-level policy objectives. This paper is organised and constructed as follows: The first subsection will frame the concept of ‘approach’, we explore the approaches that are widely-implemented in order to target a specific price-level; *rules*-based approaches and *principle*-based approaches<sup>1</sup>. We then explore these rules in more depth through the subsequent choice of policy rule. We explore the Taylor rule, The HM rule and the McCallum rule. The second subsection will gather research on principle-based (or risk-based) policy responses in the literature. The third subsection will evaluate and conclude on the future feasibility of the aforementioned approaches.

## 1993: The Birth of The Policy Rule

From the neoliberalism of John Williamson’s Washington Consensus in 1989 to the advent of inflation targeting in 1993 and to what some have referred to as the Post-Washington Consensus (Neto and Vernengo, 2004; Stiglitz, 2005) with inflation and consumption effects (Mello Jr and Carneiro, 2000), we have seen transformational thinking take its foothold, such *moral* agency has often preceded reasoning in many instances (Painter-Morland and ten Bos, 2011). We have also seen the advent of frontier perspectives in the literature on policy rules, while witnessing the escalation of the financial market into what most notable ‘Fed watchers’ and ‘FX strategists’ spend the majority of their careers observing; the determinants of Okun’s Law (Krugman, 1998). Inter-generational theories of inflation dynamics have progressed our understanding of monetary (and fiscal) policy, ten-fold. Not only has inflation targeting as a modern policy objective been widely effective (Svensson, 1999) but the academic literature on interest rates has also grown dramatically in complexity to explore the presence of various microfoundations in the New and Post-Keynesian models, respectively (Ball, *et. al.*, 1988) with both Austrian school principles (Horwitz, 2000:222) and with elements in-line with the Lucas Critique<sup>2</sup> (Lucas, 1976).

---

<sup>1</sup> This paper borrows from the work and structure of Lydia Sandner (2022). See [here](#) for more

<sup>2</sup> Notes by Professor Guido Ascari of University of Pavia are available [here](#) for reference

Some Economists have found optimal monetary policy to be a function of New Keynesian price and demand trade-offs (Seneca, 2019). Others have seen fiscal policy in the light of domestic and foreign consumers, or heterogeneous agents (Bassetto, 2014) modelled in finite time (Sutherland, 1997). We have seen the age of robust control monetary policy (von zur Muehlen, 2001; Walsh, 2004) and the age of the zero lower bound (2011-2017<sup>3</sup>) has been used as a binding constraint on the interest rate and New Keynesian fiscal expansion (Nakata, 2013). Others have found the intuition that incorporating *contemporary* Calvo pricing (Kitney, 2015; Sims, 2018) *vis-a-vis* New Keynesian real rigidities in demand and staggered wages, with monetary effects. One important paper, which references the Taylor (1993) seminal work, has even found that macroprudential policies correlate with stronger and less volatile economic growth (Boar *et.al.*, 2017).

In this paper, I find that as a first step, there is significant value in defining the expressions we will be using throughout the course of the literature review. At this juncture, it is critical to the objective of this paper to adequately define two terms: *rules-based* and *principle-based* approaches. How will the concept of a *rules-based* approach be framed? How does this differ from a *principle-based* approach to macrostability? What, indeed if anything, does it imply about central bank policy, and where in the financial system, if at all, do these approaches appear or apply? To answer these questions we must first dig a bit deeper into the theory of governance.

Banking regulation and to be more specific macroprudential regulation is very much a bureaucratic/principal-agent dilemma. Why do I say this? I say this because, whenever Parliamentary or Federal legislation amending the responsibilities of the central bank or a systemically important entity with some element of public interest is enacted, it is typically done so in good faith. Nevertheless, in the absence of any technical provision, it is somewhat unfortunate that it should be left to human interpretation to implement the intent of vague legal terminology. The principal-agent bureaucracy problem is explained succinctly by this reference in the literature:

*“...Bureaucratic control is rule-based, and often exists outside of the organisation in the form of legitimate authority as represented by governments or other legitimised institutions...Failure of bureaucracies may also occur,*

---

<sup>3</sup> See [here](#) a speech by Benoit Coeure which prescribes two-types of policy to the issue of the zero lower bound on interest rates. The first being the type of policy that takes the zero lower bound as given, and secondly those which aim to remove the zero lower bound constraint “altogether”.

*however, due to unintentional or unforeseen consequences in the application of rules” (Sama and Shoaf, 2005).*

Within the literature, the paper by Sama and Shoaf (2005) is recited time and time again. Take for example its use in Arjoon (2006), where the author suggests Sama and Shoaf (2005) is useful in that the text sustains the argument on the intuition of the Sarbanes-Oxley (SOX) Act. Even though SOX compliance is the embodiment of super tight financial reporting regulation in the US, the SOX Act “would be stronger if it focused more on the principles it was trying to forward” according to Arjoon (2006). Or as Orphanides, a distinguished Economist, puts it, in regards to rules-based monetary policy:

*“...if policymakers mistakenly adopt policies that are optimal under the presumption that their understanding of the state of the economy is accurate when, in fact, such accuracy is lacking, they inadvertently induce instability in both inflation and economic activity” (Orphanides, 2001).*

Now, comparatively, the realm of financial reporting compliance and monetary oversight might seem like the homes of two completely different rules-based systems and in-line with this view, this paper agrees that the Sarbanes-Oxley Act is a completely different type of approach to a Federal Act declaring the goals of promoting monetary stability through policy control (Orphanides and Williams, 2005). The two approaches are not even comparable.

There is a perspective that permeates and also that resonates partially to an extent, that monetary policy and macro stability is behind the curve in comparison to its industry peers. The Prudential Regulation Authority and Financial Conduct Authority have common objectives but this paper as a text, is of the view that there is always, and should always, be a synthesis to concerns such as the one being experienced by central banks at a macroeconomic level; and indeed, there are. But they emerge as knights in shining armour from the world of non-financial reporting. The literature on hybrid governance approaches, particularly attributed to the Journal of Business Ethics, is overwhelmed with examples of high-level alternatives to a rules-based approach where risk is at the forefront. One of the most pragmatic of perspectives happens to be the risk-based approach by Arjoon (2006).

Take for example, the 100 Group. An industry lobby group in the United Kingdom. In the 3rd subsection of its 21st response (found in the appendices) to

the Brydon review, the 100 Group Chairman, Brian Gilvary, made it clear that environmental sustainability reporting is feasible but the caveat is “there are a plethora of frameworks in existence” such that “only limited assurance should be given to such metrics<sup>4</sup>”. Now, although Gilvary’s successor, Julia Wilson has change the position of the 100 Group, such that (as she asserts) “we (100 Group) are supportive of a common set of standards for non-financial reporting, particularly Environmental, Social and Governance (ESG) reporting that unites a wide array of frameworks currently in operation and emerging internationally<sup>5</sup>”.

In an age of digital technology, where most are presumably adequately fluent and are sufficiently aware of the core reporting frameworks in the accountancy profession, it may seem somewhat strange that we are gathering to briefly discuss the harmonisation of non-financial reporting standards (Tschopp and Huefner, 2015), but the normalisation of the plurality of means of reporting is becoming an ever more critical part of the debate surrounding the practicalities of a sufficient principle-based disclosure mechanism for monetary supervision. A recently published article estimates the relationship between market value and International Sustainability Standards (or ‘ISS’) using panel data fixed effects and concludes that the adoption of an *international* reporting standard is optimal for a reporting firm, up until a certain inflection point. The authors determine that this particular inflection point is given where more than two reporting standards are used in the same report. Afterwhich, the spread of choice across each subsequent ‘ISS’ yields a negatively correlated concave function with the variable “firm value” (Darnall, *et.al.*, 2021).

The harmonisation and convergence of global sustainability reporting standards (Afolabi, *et. al.*, 2023; Stology and Paugam, 2023; Zaid and Issa, 2023) by standard-setters is a hot topic that we shall explore in more detail in this paper.

According to research published by McKinsey & Co<sup>6</sup>, infrastructure is already known to be a heavily gender biased industry, and is statistically against the female worker in terms of employment opportunity in both finance and engineering, but also in terms of pay equality. This is just one area that sustainability reporting is geared towards addressing. Earlier this year, I was fortunate enough to have been given the opportunity to study the reporting format of 100 annual ESG and sustainability reports within the asset management and infrastructure industries. The list of companies I studied is

---

<sup>4</sup> Gilvary gives this view in a response to Brydon (2019), which is available [here](#)

<sup>5</sup> 100 Group Chair Wilson takes this position in an interview, available [here](#)

<sup>6</sup> The full report can be found on the McKinsey website and is available [here](#)

available on my company website<sup>7</sup>. Many of the reporting entities we sampled were leading infrastructure companies, listed on either the London Stock Exchange or the New York Stock Exchange. Other reporting entities were noted as having privately owned structures. Importantly, as part of the internal research project we conducted, entitled the ‘Reporting Hub’ project, we discovered that there were several infrastructure companies in our sample of 100 reports which tended to opt to amalgamate their reporting techniques, selectively. This technique was visible in various of the 2021 and some of the 2022 reports, where an image based list, logo table or reporting infographic was used to explain which of the various standards each reporting entity was amalgamated with. Many of the infrastructure reporting entities we sampled *preferred* using a combination of GRI, SASB, and IASB sustainability reporting standards to disclose<sup>8</sup>.

I made the assumption that true disclosure on requirements such as diversity, inclusion and gender may leave reporting entities exposed to unfavourable reporting signals which can determine the future level of corporate reputation observed in a particular period of its operation. As oftentimes, an unfavourable signal may reflect a lower than investable industry benchmark (according to ESG rating agency indices) for requirements such as equal pay, or in particular, gender equality on boards. The overarching point here is that companies can opt into or choose which reporting requirements to comply with - which, while being a convenient and expedient option for reporting entities that span numerous jurisdictions is, from a *governance* perspective, arguably somewhat detrimental to the overall hegemony of the reporting process (See Afolabi, *et. al.*, 2023).

I discovered through this opportunity to conduct primary research that many companies choose (Stolowy and Paugam, 2023) not to report in accordance with GRI Sustainability Disclosures i.e. by opting out. Consider this scenario, for instance, under the GRI Disclosure 405-1 Standards<sup>9</sup>, companies are required to report for diversity of governance bodies and employees against the following measures: gender, age group and minority groups. Under the GRI Disclosure 405-2 Standards, companies are required to report further on “the ratio of basic salary and remuneration of women to men for each employee category by

---

<sup>7</sup> See the official IBR Group International website for the ‘Reporting Hub’ project: <https://www.ibrecruitment.com/hub/>

<sup>8</sup> Note: It is perceived that the ISSB will either integrate with or eliminate the need for GRI sustainability disclosures. Indeed, in the interest of convergence, the ISSB and GRI have made inroads into a collaborative “two pillar” focused system of operating. See [here](#)

<sup>9</sup> See the GRI Reporting framework, available [here](#)

significant locations of operation”. However, disclosing poor performance may reduce investor sentiment towards a company that reports its GRI Standards negatively. This signal may also reduce a company’s ESG score as measured by one of several ESG ratings agencies.

Harmonisation seems to be a point of repeated reference for regulators and governing bodies. While many in the literature refer to harmonisation as “contested arena” (Afolabi, *et. al.*, 2023:6). We will vye steadily away from the WWE analogy. The term ‘harmonisation’ was indeed used at the IFRS annual conference on June 26 by two notable plenary speakers, including the ISSB Chair, indicating it is an option that the IFRS may have open. Harmonisation is much more about pursual of corrective action than rearview thinking. ESG reporter Robert Eccles<sup>10</sup> in his LinkedIn post points to five major challenges that must be overcome by the ISSB following its unveiling of S1 and S2 disclosures. The first of which is corporate engagement (Afolabi, *et.al.*, 2023:6), achieved by providing the assistance to “companies to abridge the steep learning curve that will be required to learn how to implement these standards.” The second of which is investor engagement, which involves educating on the value and instilling the necessary confidence in the use of the ISSB’s new standards. The third of which, according to Bob Eccles, involves winning support from unconformed jurisdictions for the new standards. The fourth of which is winning support from political institutions (Afolabi, *et.al.*, 2023) many of which are involved in a proxy war (Rajgopal *et.al.*, 2023). The fifth of which is international interoperability between the numerous continental standards that currently exist in silo.

Even so, even in the twilight of its implementation phase, we can perceive that there is a subtle difference between the harmonisation and this concept of interoperability, namely, the fact that both approaches require some degree of internal to external collaboration and a significant element of trust. Both require cross-functional technical capabilities to be continuously explored (QA Testing). Both are issues that affect a global network of corporate stakeholder groups, and finally both harmonisation and interoperability can be multi-project-based undertakings. The ISSB has to decide if it wishes to accomplish the test and implement upgrades in the form of harmonisation to its technical standards, thereby forming a regularly upgraded test environment with the end goal of ultimately developing a unified and streamlined reporting standard. The alternative is to allow companies to selectively opt out of certain requirements

---

<sup>10</sup> See [here](#) the LinkedIn profile of Robert Eccles for more information on this



and to report under preferred criteria. The alternative to collaboration is thus mutually assured destruction for all reporting standards.

## **Monetary Policy Rules in the Western World**

Let's cut to the good stuff. In contrast to 2023, 1993 was a watershed year. Economists should really be in the streets celebrating. Why? Well, because there are several widely-accepted policy 'rules' and 'tools' of monetary conduct that were birthed from that particular year (Svensson, 1999).

Charles L. Evans (1998) puts it best when he writes eloquently on the reasoning as to why the impetus was for the Board of Governors of the Federal Reserve and the Federal Open Market Committee ('FOMC') to adhere so stringently to a rules-based approach to monetary policy when the Federal Reserve Act<sup>11</sup> clearly specifies that the Board and the FOMC have a specific duty to "promote effectively the goals of maximum employment, stable prices, moderate long term interest rates".

Yet, as Evans and many professional economists have since pointed to, research exists that demonstrates the fragility of a rules-based approach when those who oversee such an approach are resolved in doing so (Evans, 1998; Orphanides, 2001). Where exactly does this leave the concept of an institutionalised rules-based approach? It leaves us in an uncertain place, in retrospect. Is our resolve committed to the policy rule, strictly speaking, or is there a point of pushback? What necessarily lies beneath rules-based governance? Let's for example, consider John B. Taylor's policy rule and how it was derived. Targeted inflation is set in model form, and explained as  $r$  which is determined by Taylor to reflect the federal funds rate. We take  $p$  as the inflation rate of the previous four quarters, and  $y$  as the percentage deviation of real output from target GDP i.e. the output gap (Taylor, 1993).

I need not engage or elaborate in the work of Taylor in the literature on this policy rule, as this is a text concerned more about the implications of the rule than the rule itself. What we can conclude is that Taylor's direct influence on the debate on the use of the rule is unequivocal. In Chapter 7.3.1 of Taylor (1999), the author outlines the policy history of the Fed funds rate and divides its history into three separate time periods.

---

<sup>11</sup> As amended by the Full Employment and Balanced Growth Act (1978)

*“The type of policy rule that describes Federal Reserve policy actions in the past 10 or 15 years is far different from the ones implied by the gold standard, by Bretton Woods, or by the early part of the flexible exchange rate era” (Taylor, 1999).*

Then in Chapter 7.4, Taylor (1999) elevates the debate by addressing the topic of deviations to the goal of monetary stability over time:

*“a comparison of policy rules and economic outcomes points to the rule the Fed has been using in recent years as a better way to run monetary policy than the way it was run in earlier years” (Taylor, 1999).*

By understanding the why behind the how, in regards to the Taylor rule’s derivation, it becomes easier to chart the course of direction between 1993-2023 in the first 30 years of its use. As Taylor mentions later in his book:

*“In my view, this mistake (Taylor referring here to the deviation in 1960s and 70s under Paul Volcker’s Chairmanship) is the second most serious monetary policy mistake in twentieth-century US. history, the most serious being the Great Depression. If a policy closer to the baseline were followed, the rise in inflation may have been avoided” (Taylor, 1999).*

This is almost identical to the fundamental premise of the ‘counterfactual’ argument that Taylor (2009) proposes on the causes of the financial crisis 10-years after this - in regards to the path of the Federal funds rate - as described above. As one prominent book review found in Business Economics notes, regarding his 2009 book, published at the same time of the book’s release:

*“Taylor’s account is refreshingly short, yet it is based on a wealth of empirical data. At times, his argument may feel a bit forced. For example, the notion that it was loose monetary policy that caused the housing bubble ignores the fact that mortgage interest rates tend to be priced off long-term U.S. Treasury yields, which the Federal Reserve neither targeted nor controlled at the time, rather than off the federal funds rate, which it does” (Templeman, 2009).*

It has been an unflattering year of accomplishments in the world of banking. Despite relatively pronounced equity markets, the 23rd year of Anno Domini announced itself as *the* year with which high inflation returned to the forefront of each of our respective consciousnesses. A cautionary word, if I may. I will refer to the phenomena of not *just* high inflation but *persistently* high inflation. Now, according to the latest data to come out of the Office for National Statistics<sup>12</sup>, 69% of 29 countries have recorded ‘high’ or ‘very high’ inflation compared to their 50-year trends. This is significant. Why? Because it shows this is not a siloed event in any one specific country. Two-thirds of the very same countries have also witnessed inflation of 6pc or above in the month of September 2022 (and likely higher, within the last 6 months).

Most Economists will tell you that the latter is to be revered more than the former. The same school of thought, believe it or not, who are now forecasting a negative growth outlook for Q4’23 and beyond, across the Group of 7 countries in the form of technical recession<sup>13</sup>. That is, within the coming months. Others from the same school of economic thought, who have forecasted that inflation will spiral out of control, have gradually come to the acceptance that growth is slowing<sup>14</sup>.

Economic policy in the United Kingdom has targeted inflation as a policy since as far back as 1992. The story behind the journey is an unusual one. After Britain exited the European Rate Mechanism or (‘ERM’) on 16 September 1992 in what Sir Mervyn King, the former Governor of the Bank of England, called in a Bank speech “an extremely difficult and turbulent day” (an intertextual reference to what has come to be known as ‘Black Wednesday’) – a turn of phrase coined to reference the very same famous words of Chancellor Norman Lamont<sup>15</sup>, the then British Prime Minister John Major gave a memorable Parliamentary address to the House of Commons on 24 September 1992<sup>16</sup>, saying:

“Thus far, our anti-inflation strategy has succeeded more spectacularly than anyone in the Opposition ever believed possible. Outside the exchange rate mechanism, the conduct of monetary policy cannot, indeed should not, be exactly the same. We must have regard to a range of indicators of

---

<sup>12</sup> Data taken from the UK’s Office of National Statistics which is available [here](#)

<sup>13</sup> Reference [a note](#) by Bill Diviney, Senior US Economist at ABN Amro Bank N.V. Published in June

<sup>14</sup> Likewise, reference [a note](#) by Societe Generale’s Global Economic and Sector Studies team.

<sup>15</sup> A speech by Sir Mervyn King, the then Governor of the Bank of England in 1999, available [here](#)

<sup>16</sup> A full transcript of John Major’s address to the House of Commons is available [here](#)

monetary conditions to make sure that our objectives on inflation in particular are not at risk.” – Sir John Major, 1992

After withdrawal from the ERM, and within the intervening period (1993-2023), policy has not been too dissimilar to the case of the United States and New Zealand since 1990. It is notable that 2023 is the 25th anniversary of the Bank of England’s formation by Act of Parliament<sup>17</sup>. Are UK Economists celebrating?

I suspect not, rather I suspect (or at least I hope) that they are up in arms. Simply because, the Bank’s interest rate (which is a base rate that dates back to the Bank’s establishment in 1694) has jumped from 0.5pc to 5pc<sup>18</sup> in the space of a few months and is at a high that hasn’t been seen since April 2008, which is quite some time ago. A few respectable Economists are calling for more “goal independence” as found in the United States (Walsh, 2010). The Bank’s independence has greatly concerned many an author in the literature (Buiter, 2004; McCallum, 1995)<sup>19</sup>. The key occupation of these views is not just the overarching focus on a rules-based approach, but also the role of government in balancing central bank outcomes.

More recently, the Prudential Regulation Authority<sup>20</sup> has worked to commit to ensuring macroprudential stability and the same legislation delegates microprudential risk-based supervision rules to the Financial Conduct Authority<sup>21</sup>, which governs commercial lenders and insurers. Of course, as McCallum (2000) notes, referencing the likes of Kenneth Rogoff, Richard Clarida, Jordi Gali, Glenn Rudebusch and Mark Gertler, to name but a few<sup>22</sup>, the role of a so-called institutionalised rules-based approach is “never to commit the banks”, rather to adhere central banks to an “actual practice and decision framework”. In the United Kingdom, the Chancellor of the Exchequer appoints members to the Monetary Policy Committee<sup>23</sup>.

But the futility of the concept itself has led to the convenience with which we see today, where successive central bank governors have relied almost

---

<sup>17</sup> In Eijffinger and Schaling (1993:72) the authors provide a concise synopsis of the Bank’s formation and responsibilities as per subsequent Acts of Parliament.

<sup>18</sup> Just below the historical average from 1975 to 2021 which was 6.3pc

<sup>19</sup> This is an example of the tolerance that has emerged towards the topic of independence. A recently published article by Open Democracy available [here](#)

<sup>20</sup> As per the Financial Services and Markets Act (2000) available [here](#)

<sup>21</sup> A recent paper published by the FSB available [here](#)

<sup>22</sup> See Clarida *et.al.* (2000) for further on this

<sup>23</sup> The latest member of the Bank’s Monetary Policy Committee has been recently announced as Megan Greene, who is currently Chief Economist at Kroll as per a appointment press release available [here](#)

incessantly on this idea that Taylor's 30-year old rule is the end all and be all of their duty.

Prominent author Edwin Truman (2002) in Chapter 6 of his book on inflation targeting refers to three aspects regarding international financial architecture, two of which are time periods. I draw attention to these two aspects, because I believe there is a lot of value in framing inflation targeting in this respect. Truman states that 'crisis prevention' and 'the management of crisis after they occur' are . In the model of this paper, I use two time horizons to notate the response of interest rate policy to business cycle fluctuations. I use a finite *pre-shock* and *post-shock* horizon (Taylor and Weiland, 2016) which is also found in Graph 1 of Boar *et.al.* (2017).

This equation cements the concept of an explicit rule, which has come under contention for decades. Not explicitly because of the content of the rule, which can be deliberated in times like these where the nature of price instability isn't necessarily endogenous but has emerged quasi-exogenously via a vicious and callous war between Russia and the Ukraine, but because the aforementioned 'instrument rules' have become a prescribed guide for conduct and action by central banks. This misalignment between intended purpose and effective utilisation is existential as we have come to see (Bernanke and Woodford, 1997).

## **Conclusive Remarks and Further Research**

In light of exogenous threats and advanced technological opportunities, this paper has discussed the relevance of a policy framework that is inclusive of moderate principle-based systems. Such policies, i.e. those that are rooted around macro event risk, as opposed to those rooted in instrumental rules, are becoming increasingly more credible. The objective here is not to dishearten new thinking on rules-based policy, but to capture the essence of recovery through a dual objective of decreasing unemployment and controlling inflation, across time. The fact remains that rules-based policy amendments may leave central banks with symptoms of inertial action. Ultimately, for many a central bank, only a move away from an explicit *rules-based* policy to an implicit *risk-based* policy response can resolve the magnitude of concerns raised in this paper. I highlight the efficiency wage and wage determination through the RBC model with macroeconomic policy effects as an area I would like to see more research done on with respect to risk-based policy responses.

## References

1. Afolabi, H. Ram, R. and Rimmer, G. (2023) "Harmonisation of Sustainability Reporting Regulation: Analysis of a Contested Arena", *Sustainability*, 14(1)
2. Arjoon, S. (2006) "Striking a Balance between Rules and Principles-Based Approaches for Effective Governance: A Risks-Based Approach", *Journal of Business Ethics*, 68(1), p.53-82
3. Azmi, W., Hassan, M. K., Houston, R., and Karim, M. S. (2021) "ESG activities and banking performance: International evidence from emerging economies", *Journal of International Financial Markets, Institutions and Money*, 70(1)
4. Ball, L., Mankiw, G., Romer, D. (1988) "The New Keynesian Economics and the Output-Inflation Trade-Off", *Brookings Papers on Economic Activity*, 1(1)
5. Bassetto, M. (2014) "Optimal fiscal policy with heterogeneous agents", *Quantitative Economics*, 5(1), pp. 675-704
6. Bernanke, B. S. and Woodford, M. (1997) "Inflation Forecasts and Monetary Policy", *Journal of Money Credit and Banking*, 29(4-2), pp. 653-684
7. Boar, C., Gamba corta, L., Lombardo, G., Pereira da Silva, L (2017) "What are the effects of macroprudential policies on macroeconomic performance" *BIS Quarterly Review*
8. Brydon, D. (2019) 'Independent review into the quality and effectiveness of audit: Call for views', The 100 Group. Available: here <https://the100group.co.uk/wp-content/uploads/2019/12/Brydon-Call-for-Views-response.pdf>
9. Buiter, W. H. (2004) "Two Naked Emperors: Concerns about the Stability and Growth Pact and Second Thoughts on Central Bank Independence", *Fiscal Studies*, 25(3), pp. 249-277
10. Clarida, R. Gali, J., and Gertler, M. (2000) "Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory", *The Quarterly Journal of Economics*, 115(1), pp.147-180

- 11.Christensen, H.B., Hail, L., and Leuz, C. (2021) “Mandatory Sustainability and CSR Reporting: Economic Analysis and Literature Review”, *Review of Accounting Studies*, 26(1), pp. 1176-1248
- 12.Darnall, N., Iatridis, K., Kesidou, E., Snellson-Powell, E. (2021) “Penalty Zone in International Sustainability Standards: Where Sustainability Doesn’t pay”, *Academy of Management Annual Meeting Proceedings*, 2021(1)
- 13.Eijffinger, S. C. W. and Schaling, E. (1993) ‘*Central Bank Independence in Twelve Industrial Countries*’, CentER for Economic Research, Vol. 140
- 14.Evans, C. L. (1998) “Real-time Taylor rules and the federal funds futures market”, *Economic Perspective: Federal Reserve Bank of Chicago*, 22, pp. 44-55
- 15.Hauser, D. and Seneca, M. (2019) “Labor Mobility in a Monetary Union”, *Bank of England: Staff Working Paper No. 786*
- 16.Hofmann, B. and Bogdanova, B. (2012) “Taylor rules and monetary policy: a global “Great Deviation?”, *BIS Quarterly Review*, September 2012
- 17.Henderson, D. W. and McKibbin, W. J. (1993) “A comparison of some basic monetary policy regimes for open economies: Implications of different degrees of instrument adjustment and wage adjustment”, *International Finance Discussion Papers*, No. 458
- 18.Iazzolino, G., Bruni, M. E., Veltri, S., Morea, D. and Baldissaro, G. (2022) “The impact of ESG factors on financial efficiency: An empirical analysis for the selection of sustainable firm portfolios”, *Corporate Social Responsibility and Environmental Management*
- 19.Khodijah, A. S. (2023) “The influence of Environmental, Social and Governance Performance on Foreign Investment”, *Journal of Accounting and Investment*, 24(1), pp. 64-83
- 20.Kitney, P. (2015) “Does the central bank respond to credit market factors? A Bayesian DSGE approach”, *CAMA Working Paper 21/2015*

21. Krugman, P. (1998) "It's Back: Japan's Slump and the Return of the Liquidity Trap", *Brookings Papers on Economic Activity*
22. Laux, V. and Ray, K. (2020) "Effects of accounting conservatism on investment efficiency and innovation", *Journal of Accounting and Economics*, 70(1)
23. Lucas, R. (1976) 'Econometric Policy Evaluation: A Critique', *Carnegie-Rochester Conference Series on Public Policy*, 1(1), pp.19-46
24. Mayaki, A. A. (2015) "Pareto-Nash Reversion Strategies: Three Period Dynamic Cooperative Signalling with Sticky Efficiency Wages, *University of Essex Discussion Paper Series*, 1(1)
25. McCallum, B.T. (1995) "Two Fallacies Concerning Central Bank Independence", *American Economic Review: Papers and Proceedings*, 85, May, pp. 207-211
26. McCallum, B.T. (2000) "Alternative Monetary Policy Rules: A Comparison with Historical Settings for the United States, the United Kingdom and Japan", *Economic Quarterly*
27. McKibben, W. J. and Panton, A. J. (2018) "Twenty-Five Years of Inflation Targeting in Australia: Are There Better Alternatives for the Next Twenty Five Years?", *RBA Annual Conferences*
28. Mello, Jr., L. R. and Carneiro, F. G. (2000) "Consumption behaviour and persistently high inflation: evidence from Latin America", *Revista Brasileira de Economica*, 54(2)
29. Meron, T. (1985) "The International Convention on the Elimination of All Forms of Racial Discrimination", *The American Journal of International Law*, 72(2), p.283-318
30. Nakata, T. (2013) "Optimal Fiscal and Monetary Policy with Occasionally Binding Zero Bound Constraints", *Journal of Economic Dynamic and Control*, 73(1), pp.220-240
31. Neto, A. F. C., and Vernengo, V. (2004) "Fiscal Policy and the Washington Consensus: A Post-Keynesian Perspective", *Journal of Post Keynesian Economics*, 27(2), pp. 333-343



32. Novy-Marx, R. (2013) "The other side of value: The gross profitability premium", *Journal of Financial Economics*, 108(1), pp. 1-28
33. Orphanides, A. (2001) "Monetary policy rules based on real-time data", *American Economic Review*, 91(4), pp. 964-985
34. Orphanides, A. (2001) "Monetary policy rules, macroeconomic stability and inflation: a view from the trenches", *Journal of Money, Credit and Banking*, 36(2), pp. 151-175
35. Orphanides, A. and Williams, J. C. (2005) "The decline of activist stabilisation policy: Natural rate misperceptions, learning and expectations", *Journal of Economic Dynamics and Control*, 29(11), pp.1927-1950
36. Oxford Analytica (2022) "Some US states are passing anti-ESG legislation", *Expert Briefings*
37. Painter-Morland, M. and ten Bos, R. (2011) '*Business Ethics and Continental Philosophy*', New York: Cambridge University Press
38. Patrick, H. and Orphanides, A. (2022) "Monetary Policy in South Africa, 2007-21" *United Nations University Working Institute for Development Economics Research: Working Paper 2022/29*
39. Poole, W. (1999) "Monetary Policy Rules?", *Review: Federal Reserve Bank of St. Louis*, March Issue, pp. 3-12
40. Rajgopal, S. Arup, S., and Rong, Z. (2023) "Do Political Anti-ESG Sanctions Have Any Economic Substance? The Case of Texas Law Mandating Divestment from ESG Asset Management Companies", 2023
41. Sama, L. M. and Shoaf, V. (2005) "Reconciling Rules and Principles: An Ethics-Based Approach to Corporate Governance" *Journal of Business Ethics*, 58(1-3), pp. 177-185
42. Sherrard, K., Li, F., and Treussard, J. (2018) "Unlocking the Performance Potential in ESG Investment", *Research Affiliates*

- 43.Sims, E., Phaneuf, L., and Victor, J. G. (2018) "Inflation, output and markup dynamics with purely forward-looking wage and price-setting", *European Economic Review*, 105, pp. 115-134
- 44.Stolowy, H. and Paugam, L. (2023) "Sustainability Reporting: Is Convergence Possible?", *Accounting in Europe*, 20(2), pp. 139-165
- 45.Sutherland, A. (1997) "Fiscal crises and aggregate demand: can public debt reverse effects of fiscal policy", *Journal of Public Economics*, 65(2), pp. 147-162
- 46.Svensson, L. (1999) "Inflation targeting as a monetary policy tool", *Journal of Monetary Economics*, 43(3), pp. 607-65
- 47.Taylor, J. B. (1993) "Discretion versus policy rules in practice", *Carnegie-Rochester Conference Series on Public Policy*, 39, pp. 195-214
- 48.Taylor, J. B. (1999) 'A Historical Analysis of Monetary Policy Rules', Ch. 7 in 'Monetary Policy Rules', University of Chicago Press, pp. 319-348
- 49.Taylor, J. B. (2009) 'Getting off track: How government actions and interventions caused, prolonged and worsened the financial crisis', Hoover Institution Press
- 50.Taylor, J. B. and Wieland, V. (2016) "Finding the equilibrium real interest rate in a fog of policy deviations", *IMFS Working Paper Series*, No. 103
- 51.Templeman, J. H. (2009) "Book Reviews: Getting off track: How government actions and interventions caused, prolonged and worsened the financial crisis", *Business Economist*, 44(3), pp.182-183
- 52.Tschopp, D. and Huefner, R. J. (2015) "Comparing the Evolution of CSR Reporting to that of Financial Reporting", *Journal of Business Ethics*, 127(3) pp. 565-577
- 53.Von zur Muehlen, P. (2001) "Activist vs Non-Activist Monetary Policy: Optimal Rules Under Extreme Uncertainty (A Primer on Robust Control)", *FEDS Working Paper 2001-02*, January 2001

54. Walsh, C. E. (2004) "Robustly Optimal Instrument Rules and Robust Control: An Equivalent Result, *Journal of Money Credit and Banking*", 36(6), pp. 1105-1113
55. Walsh, C. E. (2010) "Central Bank Independence", *Monetary Economics*, pp. 21-26
56. Zaid, M. A. A., and Issa, A. (2023) "A roadmap for triggering the convergence of global ESG disclosure standards: lessons from the IFRS foundation and stakeholder engagement", *Corporate Governance*