

THE RESOURCE CURSE WITHOUT NATURAL RESOURCES: EXPECTATIONS OF RESOURCE BOOMS AND THEIR IMPACT

JĘDRZEJ GEORGE FRYNAS, GEOFFREY WOOD AND TIMOTHY HINKS*

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ABSTRACT

Many resource rich countries have experienced a range of negative economic and political effects from natural resource extraction, often lumped together as the ‘resource curse’. This paper investigates to what extent future expectations of natural resource booms in São Tomé e Príncipe and Madagascar have led to ‘resource curse’ effects, even though these countries did not experience the expected natural resource booms. Our findings suggest that both countries have experienced resource curse effects as a result of future expectations, including volatile economic growth and deteriorated governance. This study contributes to the literature by demonstrating that shared aspirations and expectations alone may make for material political and economic outcomes, even when they become visibly divorced from reality, hence there is much more to resource curse effects than simply the product of the material extraction of natural endowments. At a time of extremely volatile prices for primary commodities, and the relatively easy availability of investment capital and credit to support speculative ventures that, in turn, incentivizes resource hype, it is likely that a growing number of countries may suffer the malign effects of a resource curse without natural resource extraction.

Many resource rich countries have experienced a range of negative economic and political effects of resource extraction, often lumped together as the ‘resource curse’.¹ However, the resource curse literature has almost entirely failed to consider possible resource curse effects in countries where

* Jędrzej George Frynas (frynasjg@gmail.com) is Professor of Corporate Social Responsibility and Strategic Management at Middlesex University. Geoffrey Wood (gtwood@essex.ac.uk) is Dean and Professor of International Business at the University of Essex. Timothy Hinks (timothy.hinks@uwe.ac.uk) is Senior Lecturer in Economics at the University of the West of England. We thank Simon Davies from the World Bank for his assistance in finding some of the data used in the article. We are very grateful to the editors of *African Affairs* and two anonymous reviewers for helpful comments on earlier versions of this article.

¹ Useful reviews are Jeffrey A. Frankel, ‘The natural resource curse: A survey’ (Working Paper 15836, National Bureau of Economic Research, Cambridge MA, 2010); Frederick van der Ploeg, ‘Natural resources: Curse or blessing?’, *Journal of Economic Literature* 49 (2011), pp.366–420; Michael L. Ross, ‘What have we learned about the resource curse?’ (Working Paper, University of California, Los Angeles, Los Angeles CA, 2014).

preliminary planning or exploratory extractive work was carried out but ultimately no significant extraction of natural resources took place. This paper investigates possible resource curse effects in countries where promised resource booms failed to materialise, looking at the cases of São Tomé e Príncipe (STP) and Madagascar.

Scholarship in economics strongly suggests that individuals act on the basis of rational future expectations and macro-level phenomena cannot be satisfactorily explained without taking into account rational expectations.² By extension, we hypothesise that political and economic decision-makers in countries holding the promise of future extraction of natural resources would take rational decisions on the basis of an expectation of a resource boom, similar to those decision-makers in countries where the extraction of natural resources actually takes place. Indeed, previous studies on countries such as Uganda³ and STP⁴ have demonstrated that the promise of a resource boom raised high expectations of potential future economic benefits among African and foreign decision-makers that may be difficult to match in reality.

The resource curse thesis suggests that countries with a high dependence on natural resources suffer from negative macro-economic and macro-political effects.⁵ The resource curse thesis has occasionally been challenged.⁶ Indeed, some writers have suggested that the effects are beneficial⁷,

² John F. Muth, 'Rational expectations and the theory of price movements', *Econometrica* 29 (1961), pp. 315–335; Robert E. Lucas Jr., 'Expectations and the neutrality of money', *Journal of Economic Theory* 4 (1972), pp.102-124; Stanley Fischer (ed.), *Rational expectations and economic policy* (University of Chicago Press, Chicago, IL, 1980).

³ Richard Vokes, 'The politics of oil in Uganda', *African Affairs* 111 (2012), pp. 303-314; Julius Kiiza, Lawrence Bategeka and Sarah Ssewanyana, 'Righting resource-curse wrongs in Uganda: The political economy of oil discovery and the management of popular expectations', *Mawazo* 10, 3 (2011), pp. 183-203.

⁴ Gisa Weszkalnys, 'Hope and oil: Expectations in São Tomé e Príncipe', *Review of African Political Economy* 35 (2008), pp. 473-482; Gisa Weszkalnys, 'Anticipating oil: The temporal politics of a disaster yet to come', *Sociological Review* 62, S1 (2014), pp. 211–235.

⁵ There are some differences of opinion as to which 'resources' contribute to the resource curse, but resource curse studies widely agree that oil, gas and mineral resources are behind the resource curse, while most studies agree that agricultural resources do not have significant resource curse impacts. The empirical evidence of resource curse effects is most robust for oil and gas. Ross, 'What have we learned about the resource curse?'

⁶ Christa Brunnschweiler, 'Cursing the blessings? Natural resource abundance, institutions, and economic growth', *World Development* 36 (2008), pp. 399–419; Michael Alexeev and Robert Conrad, 'The elusive curse of oil', *Review of Economics and Statistics* 91 (2009), pp. 586–598.

⁷ Stephen Haber and Victor Menaldo, 'Do natural resources fuel authoritarianism? A reappraisal of the resource curse', *American Political Science Review* 105 (2011), pp. 1-26; Tiago V. de V. Cavalcanti, Kamiar Mohaddes and Mehdi Raissi, 'Growth, development and natural resources: New evidence using a heterogeneous panel analysis', *Quarterly Review of Economics and Finance* 51 (2011), pp. 305–318.

particularly with regards to economic growth⁸. In response to such critiques, proponents of the resource curse thesis shifted their attention to possible adverse political consequences.⁹ Other studies have suggested that resource curse effects are subject to considerable contingencies, including the nature of governance (notably, democratic regimes are significantly less prone to such effects)¹⁰ and the resource type (notably, oil-producing countries are significantly more prone to such effects).¹¹ Indeed, some countries such as Norway and Canada have largely been able to evade the resource curse; it could be argued that this was due to better governance or already existing economic diversification¹². Hence the presence of resource curse effects, or their absence, arguably reflects relatively unique and complex sets of circumstances, ranging from the structure of the domestic economy to political and corporate governance regimes¹³. More recently, attention has returned to the economic sphere, with arguments that the previous findings on beneficial effects of resource windfalls were contingent upon the panel of countries selected and the time period under review¹⁴. In addition to the debates on economic and political effects, a third strand of the literature suggests that resource rich countries are more prone to civil conflicts¹⁵. We shall briefly summarise these three aspects of the resource curse below.

First, the inflow of resource revenues can lead to the so-called Dutch Disease phenomenon – the appreciation of a country’s currency exchange rate, which can reduce exports of agricultural and manufacturing goods. While, as we have seen, empirical evidence does not necessarily suggest that

⁸ Brunnschweiler, ‘Cursing the blessings?’; Alexeev and Conrad, ‘The elusive curse of oil’.

⁹ Paul Collier, ‘The political economy of natural resources’, *Social Research*, 77 (4) (2010), pp. 1105-1132; Michael Ross, *The oil curse: How petroleum wealth shapes the development of nations* (Princeton University Press, Princeton, 2012).

¹⁰ Sambit Bhattacharya and Roland Hodler, ‘Natural resources, democracy, and corruption’, *European Economic Review* 54 (2010), pp. 608–621; Ross, ‘What have we learned about the resource curse?’.

¹¹ Anne Boschini, Jan Pettersson and Jesper Roine, ‘Resource curse or not: A question of appropriability’, *Scandinavian Journal of Economics*, 109 (2007), pp. 593-617; Ross, ‘What have we learned about the resource curse?’.

¹² Halvor Mehlum, Karl Moene and Ragnar Torvik, ‘Institutions and the resource curse’, *Economic Journal* 116, 508 (2006), pp. 1-20; James Robinson, Ragnar Torvik and Thierry Verdier, ‘Political foundations of the resource curse’, *Journal of Development Economics* 79, 2 (2006), pp. 447-468.

¹³ See Jørgen Andersen and Michael Ross, ‘The big oil change: A closer look at the Haber–Menaldo analysis’, *Comparative Political Studies* 47 (2014), pp. 993-1021; David Wiens, Paul Poast and William Roberts Clark, ‘The political resource curse: An empirical re-evaluation’, *Political Research Quarterly* 67 (2014), pp. 783-794.

¹⁴ Ibid.

¹⁵ Michael Ross, *The oil curse: how petroleum wealth shapes the development of nations*; Kuntala Lahiri-Dutt, ‘May God give us chaos, so that we can plunder: A critique of “resource curse” and conflict theories’, *Development* 49, 3 (2006), pp. 14-21.

resource wealth leads to lower economic growth, the natural resource sectors can draw capital, labour and entrepreneurial activity away from non-resource sectors, thereby stifling the development of those sectors.¹⁶ Based on the evidence from 41 resource exporting countries during 1970–2006, a recent study suggested that, in response to one dollar of natural resource revenue, non-resource exports decrease by approximately 75 cents and imports increase by 25 cents, and indeed, the windfall effect was most severe for countries with a large manufacturing sector.¹⁷

Second, the inflow of resource revenues can undermine good governance and the quality of institutions. Given their dependence on extractive revenues, governments in resource-rich countries have greater incentives to focus their efforts on political competition to capture resource rents and on patronage to pay off political supporters to stay in power, rather than on providing incentives to create wealth by improving the quality of societal institutions.¹⁸ Empirical evidence strongly suggests *inter alia* that resource-rich countries tend to suffer from higher levels of corruption than non-resource rich countries¹⁹ and that resource abundance helps autocratic regimes to remain in power.²⁰

Third, resource revenues provide fewer incentives for human co-operation and tend to be less affected by violent conflicts than other economic sectors, as extractive firms can build the necessary infrastructure, provide their own security and – being enclave economies – rely less on local business linkages. At the same time, the prospects of gaining control over resource revenues may fuel the activities of rebel groups, potential coup leaders and other violent forms of political opposition.

¹⁶ van der Ploeg, ‘Natural Resources: Curse or blessing?’; Kareem Ismail, ‘The structural manifestation of the “Dutch Disease”: The case of oil exporting countries’ (Working Paper 10/103, International Monetary Fund, Washington DC, 2010); Milan Brahmbhatt, Otaviano Canuto and Ekaterina Vostroknutova, ‘Dealing with Dutch Disease’, *Economic Premise* 16 (World Bank, Washington DC, 2010).

¹⁷ Torfinn Harding and Anthony J. Venables, ‘The Implications of natural resource exports for non-resource trade’ (Research Paper 103, Oxford Centre for the Analysis of Resource Rich Economies, University of Oxford, Oxford, 2013).

¹⁸ Richard Auty, ‘Patterns of rent-extraction and deployment in developing countries: Implications for governance, economic policy and performance’, in George Mavrotas and Anthony Shorrocks (eds.), *Advancing development: Core themes in global economics* (Palgrave, London, 2007), pp. 555-577; Robinson, Torvik and Verdier, ‘Political foundations of the resource curse’.

¹⁹ Andrea Petermann, Juan Ignacio Guzman and John E. Tilton, ‘Mining and corruption’, *Resources Policy* 32 (2007), pp. 91–103; Ivar Kolstad and Tina Søreide, ‘Corruption in natural resource management: Implications for policy makers’, *Resources Policy* 34 (2009), pp. 214–226 at p. 214.

²⁰ Joseph Wright, Erica Frantz and Barbara Geddes, ‘Oil and autocratic regime survival’, *British Journal of Political Science* 45 (2015), pp. 287-306; Anar K. Ahmadov, ‘Oil, democracy, and context: A meta-analysis’, *Comparative Political Studies* 47 (2014), pp. 1238-1267.

Empirical evidence strongly suggests that the presence of natural resources significantly increases the threat of armed conflict albeit this impact is subject to a number of contingencies²¹, above all, the location of resources is crucial. For example, if resources are located inside the actual conflict zone, a conflict can be significantly exacerbated, but this effect is likely to be slight if oil is found offshore.²²

Our study suggests that societies may experience resource curse effects without necessarily experiencing genuine resource windfalls; rather anticipation of future resources may lead to at least some of the adverse effects of the resource curse. In particular, we encountered negative effects in terms of political stability and quality of governance, and significantly greater macro-economic volatility. Although we did not find much tangible evidence for enhanced levels of violent conflict, this study does highlight the corrosive effects of resource hype, at a time when extremely volatile prices for primary commodities and the relatively easy availability of investment capital and credit to support speculative ventures, increase the scope for the negative effects of future expectations.

The need for our present study arises, since the few previous studies that addressed the effects of future expectations either based their conclusions on economic experiments and/or investigated a single issue related to the resource curse such as corruption or exchange rates. To our knowledge, no previous study has comparatively investigated a range of resource curse effects based on future expectations in the absence of actual resource extraction. Our study aims to fill this gap.

Expectations of resource booms in historical and temporal terms

The resource curse literature has focused on the impact of *actual* resource extraction, but the idea that *expectations* of future resource revenues may lead to negative macro-economic effects should not come as a surprise to those familiar with history. For instance, in late 16th century Spain, the ‘expectation of future mineral discoveries prompted factors of production to be diverted from export

²¹ Paul Collier and Anke Hoeffler, ‘On the economic causes of civil war’, *Oxford Economic Papers* 50 (1998), pp. 563–573; Macartan Humphreys, ‘Natural resources, conflict, and conflict resolution: Uncovering the mechanisms’, *Journal of Conflict Resolution* 49 (2005), pp. 508–537.

²² Päivi Lujala, ‘The spoils of nature: Armed civil conflict and rebel access to natural resources’, *Journal of Peace Research* 47 (2010), pp. 15–28; Ross, ‘What have we learned about the resource curse?’.

industries, such as fine wool and manufactures, and into the extraction and service industries associated with the silver trade'.²³ Future expectations related to resource booms created property bubbles, as in the case of Australia in the late 19th century.²⁴

Some key authors on the resource curse have briefly noted the role of expectations in aggravating the effects of the resource course. Auty pointed out that the neglect of non-resources sectors resulted 'in part from over-optimistic expectations for both mineral prices and RBI [resource-based industry] output'.²⁵ Karl and Gary asserted that 'oil booms raise expectations and increase appetites for spending' and that as a result, 'governments dramatically increase public spending based on unrealistic revenue projections'.²⁶ They also pointed out that 'the expectations created by oil riches and the reality produced is a dangerous formula for disorder and war'.²⁷

Several recent studies have specifically explored the mechanisms by which expectations of a resource boom may lead to adverse economic and political outcomes. It has been suggested that expectations of an oil boom can increase corruption and can lead to a change in the allocation of public resources.²⁸ Elsewhere, it has been suggested that expectations of future resource revenues can cause economic effects such as changes in the real exchange rate.²⁹ Furthermore, unmatched expectations of higher personal incomes among the population can cause popular discontent and can lead to societal conflicts.³⁰ This literature suggests that expectations of future resource booms can have different negative impacts on the economy, government policy and violent conflict even in the

²³ Mauricio Drelichman and Hans-Joachim Voth, 'Institutions and the resource curse in early modern Spain', in Elhanan Helpman (ed.), *Institutions and economic performance* (Harvard University Press, Cambridge MA, 2008), p.134.

²⁴ Geoffrey Blainey, *The rush that never ended – A history of Australian mining* (Melbourne University Press, Melbourne, 1963).

²⁵ Richard M. Auty, *Sustaining development in mineral economies – the resource curse thesis* (Routledge, London, 1993), p.20.

²⁶ Terry-Lynn Karl and Ian Gary, 'The global record' in *Foreign Policy in Focus* (Interhemispheric Resource Center/Institute for Policy Studies/SEEN, Washington DC and Silver City NM, 2004), pp. 35–42 at p.36.

²⁷ Terry-Lynn Karl and Ian Gary, *Bottom of the barrel – Africa's oil boom and the poor* (Catholic Relief Services, Baltimore MD, 2004), p.18.

²⁸ Pedro C. Vicente, 'Does oil corrupt? Evidence from a natural experiment in West Africa', *Journal of Development Economics* 92 (2010), pp. 28–38.

²⁹ Aziz Hayat, Bahodir Ganiev and Xueli Tang, 'Expectations of future income and real exchange rate movements', *Journal of Banking & Finance* 37 (2013), pp. 1274–1285.

³⁰ Gerhard Toews, 'Inflated expectations and natural resource booms: Evidence from Kazakhstan' (Research Paper 109, Oxford Centre for the Analysis of Resource Rich Economies, University of Oxford, Oxford, 2013).

absence of the actual exploitation of natural resources. As Weszkalnys notes, ‘occasionally, it is thought to be just the expectation of oil that causes the curse to happen’.³¹

However, prior scholarship related to future expectations either based their conclusions on economic experiments and/or investigated a single issue related to the resource curse such as corruption or exchange rates. To our knowledge, our study is the first to comparatively investigate a range of resource curse effects based on future expectations in the absence of actual resource extraction.

Given that the resource curse has been a phenomenon noted for over 25 years³², why have the malign consequences of prospective, but not real, resource booms only become visible relatively recently? Is this because the impact of prospective resource booms has been so insignificant, or is it because the current theories that are used to explain the processes by which natural resources translate into different outcomes (such as rentier-type theories, or conflict theories) fail to satisfactorily conceptualize the role of cognition and expectations? Consistent with recent contributions on expectations in resource-rich countries including STP and Madagascar³³, we believe that – compared with the most popular current theories in the resource curse literature – theoretical insights on the link between natural resources and speculation/anticipation may provide superior explanations of the effects of resource boom expectations.

Many authors writing from the perspectives of economics, sociology and other disciplines have argued that speculation and anticipation are integral elements of decision making, as decision-making involves uncertainty and is shaped by future expectations.³⁴ Some writers argue that the importance of economic speculation and anticipation has increased in recent decades due to global economic shifts.

³¹ Weszkalnys, ‘Anticipating oil’.

³² For a consolidation of the early resource curse literature, see Richard Auty, ‘Industrial policy reform in six large newly industrializing countries: The resource curse thesis’, *World Development* 22, 1 (1994), pp. 11-26.

³³ Weszkalnys, ‘Anticipating oil’; Andrew Walsh, ‘In the wake of things: Speculating in and about sapphires in Northern Madagascar’, *American Anthropologist* 106 (2004), pp. 225–237.

³⁴ See, for example, Brian Kantor, ‘Rational expectations and economic thought’, *Journal of Economic Literature* 17 (1979), pp. 1422-1441; Adeline Delavande, Xavier Giné and David McKenzie, ‘Measuring subjective expectations in developing countries: A critical review and new evidence’, *Journal of Development Economics* 94 (2011), pp. 151–163; Vincanne Adams, Michelle Murphy and Adele E. Clarke, ‘Anticipation: Technoscience, life, affect, temporality’, *Subjectivity* 28 (2009), pp. 246-265.

Wood and Lane³⁵ specifically argue that – in historical terms – we have experienced a long economic crisis since the early 1970s – a period of volatile and unstable growth interposed with recession – triggered by the oil shocks of the early 1970s and underlined by a long transition away from petroleum resources. They suggest that the high or volatile natural resource prices are accompanied by a greater availability of speculative capital (in the form of rentiers, sovereign wealth funds and others), encouraging a greater amount of hype and gambling on future resource booms, drawing in or sidelining other players to a process of accumulation that has much to do with debt leverage and the inflating of the value of concessions, and little to do with material production. It has been argued that these effects have been particularly accentuated in the petroleum industry, with rising speculative activity and debt leverage.³⁶ Following such analysis, the speculative long energy transition thesis would be consistent with findings in the most recent literature that the negative effects of the resource curse became more pronounced since the 1980s and that they are most pronounced in the petroleum sector.³⁷

However, structural changes in the global capitalist ecosystem represent only half of the picture. Jessop argues that whilst there are dominant forces and pressures in the global capitalist ecosystem, there remains much variety within and between contexts. Each national and regional framework is associated with its own distinct forms of conflict and compromise; only in some circumstances, does this lead to a “spatial-temporal fix”, associated by structural coherence in the national political economy.³⁸ As Weszkalnys notes, anticipation of resource windfalls can both lead to the rapid development of new and not always coherent or well designed regulatory structures, and undermine

³⁵ Geoffrey Wood and Christel Lane, ‘Institutions, change and diversity’, in Christel Lane and Geoffrey Wood (eds.), *Capitalist diversity and diversity within capitalism* (Routledge, London, 2012), pp. 1-32; Christel Lane and Geoffrey Wood, ‘Capitalist diversity: Work and employment relations’, in Adrian Wilkinson, Geoffrey Wood and Richard Deeg (eds.), *Oxford handbook of employment relations: Comparative employment systems* (Oxford University Press, Oxford, 2014), pp. 156-172.

³⁶ Richard Heinberg, *Snake oil: How fracking’s false promises of plenty imperils our future* (Clairview, West Hoathly, 2014); Antonie Kotze. ‘Debt, defaults and crises: A Historical perspective’ available at SSRN 2587342 (2015).

³⁷ Andersen and Ross, ‘The big oil change’; Ross, ‘What have we learned about the resource curse?’.

³⁸ Bob Jessop, ‘Rethinking the diversity and variability of capital’, in Christel Lane and Geoffrey Wood (eds.), *Capitalist diversity and diversity within capitalism* (Routledge, London, 2012), p. 216.

existing social ties and trust relations³⁹, which in turn, would preclude the type of institutional alignment and coupling that would make stable growth possible⁴⁰.

Whether or not the reader is convinced by arguments of long energy transitions, it is evident that the global political economy has become a very much more uncertain place, and that the intersection between global trends and not always coherent national institutional arrangements suggests great unpredictability.⁴¹ Guyer argues that bleak circumstances of ‘enforced pessimism’ encourage imagination, planning and hoping about an abundant ‘near future’ of social and material prosperity, that encourages the leverage of debt and the selling of hope.⁴² Adams et al. conclude that anticipation represents the assumption that the boundaries of the possible have been extended, creating a sense of urgency among agents to leverage the new opportunities.⁴³

In different ways, these studies provide a conceptual arsenal that can be used to better understand the mechanisms through which mere future expectations of resource booms may translate into real world outcomes.

Resource boom expectations in STP and Madagascar

Before we begin analysing the impact of resource boom expectations, it is necessary to establish their timeline – that means, to pinpoint the evolution of such expectations in both countries.

In STP, resource boom expectations began around 1997 when the government signed an agreement with a small US firm ERHC to negotiate on its behalf with potential foreign investors for the award of oil licences. In 1998, the government and ERHC created a joint venture company, Sociedade Nacional de Petroleos de São Tomé e Príncipe (STPETRO), with a 51 percent government shareholding and STPETRO signed an agreement with the multinational Mobil (later ExxonMobil) to evaluate the oil

³⁹ Weszkalnys, ‘Anticipating oil’.

⁴⁰ Jessop, ‘Rethinking the diversity and variability of capital’.

⁴¹ Ibid., p. 216.

⁴² Jane Guyer, ‘Prophecy and the near future’, *American Ethnologist* 34, 3 (2007), pp. 409-421.

⁴³ Adams, Murphy and Clark, ‘Anticipation: Technoscience, life, affect, temporality’.

and gas potential in the country's offshore area.⁴⁴ As Mobil set out to actively evaluate the country's geological potential over 18 months, the government negotiated the establishment of a Joint Development Zone (JDZ) in the most promising offshore area between STP and Nigeria – to be jointly administered by the two countries– these negotiations were concluded in late 2000.⁴⁵ Therefore, the period around 1997-2000 can be safely assumed to mark the beginning of resource boom expectations in STP.⁴⁶

In contrast to STP, there were at least two waves of resource boom expectations in Madagascar, which related to different types of resources. In the mid- to late-1990s, Madagascar expected a resource boom in sapphires. In marked contrast to the oil sector in STP that required capital-intensive advanced technologies, sapphires in Madagascar were found in alluvial deposits and any person with a spade and simple tools was able to mine for sapphires, hence an artisanal sapphire mining rush took place: 'Rumours of sapphires the size of footballs and of fortunes made in a single day have made Ilakaka irresistible'.⁴⁷ At the epicentre of the rush, the population of Ilakaka, increased from 30 to roughly 100,000 during 1998-2000.⁴⁸ Meanwhile, the Malagasy government passed laws for regulating natural resource exploitation in 1996 (petroleum) and 1999 (mining).⁴⁹ Therefore, the period around 1996-1999 marked the beginning of resource boom expectations in Madagascar.

The second notable wave of resource boom expectations in Madagascar arguably occurred after the 2002 political crisis following a disputed presidential election.⁵⁰ The country's new president Marc Ravalomanana ousted Didier Ratsiraka (who was president 1975-1993 and 1997-2002), and initiated political and economic reforms that resulted in much greater support by foreign donors and a better

⁴⁴ Jędrzej George Frynas, Geoffrey Wood and R.M.S. Soares de Oliveira, 'Business and politics in São Tomé e Príncipe: From cocoa monoculture to petro-state', *African Affairs* 102 (2003), pp. 51–80.

⁴⁵ Ibid.

⁴⁶ See Gisa Weszkalnys, 'The curse of oil in the Gulf of Guinea', *African Affairs* 108 (2009), pp.679-689.

⁴⁷ Rosaleen Duffy, 'Global environmental governance and the challenge of shadow states: The impact of illicit sapphire mining in Madagascar', *Development and Change* 36 (2005), pp.825-843, at p.837.

⁴⁸ 'Big hopes for Madagascan sapphires', *Financial Times* (18 August 2000).

⁴⁹ *Madagascar: Nouvel eldorado des compagnies minières et pétrolières* (L'Association IRESA/ Initiative pour la recherche économique et sociale en Afrique sub-saharienne et les Amis de la Terre France, Paris, November 2012).

⁵⁰ On the 2002 political crisis, see Solofo Randrianja, ' "Be not afraid, only believe": Madagascar 2002'. *African Affairs* 102 (2003), pp.309-329.

investment climate for foreign investors. At the same time, foreign donors contributed to resource boom expectations by helping the Malagasy government to identify new potentially resource-rich areas. In 2003, the World Bank provided US\$32 million to Madagascar for managing the country's mineral resources. In 2004, USAID released a map that showed Madagascar's potentially rich gem areas, in order to encourage the sale of prospecting licences to foreign mining companies.⁵¹ Also in 2004, a US-registered company called Madagascar Oil was granted a petroleum exploration licence (the French oil firm Total became a partner in 2008). Over the following decade, the government awarded hundreds of mining licences with regards to a wide range of resources, including iron, nickel, cobalt, gold, ilmenite, bauxite and uranium. Foreign direct investment (FDI) stock in Madagascar's extractive sector increased from 47 billion to 5800 billion ariary during 2005-2009.⁵²

In summary, great resource boom expectations began in parallel in the late 1990s in both countries. However, despite these expectations, the extractive sector in both countries did not fulfil its promises for a decade and a half.

In STP, no oil in commercial quantities has been found to-date and oil production has not yet commenced. By 2013, the French oil multinational Total and the Swiss-based Addax Petroleum (a subsidiary of China's Sinopec) abandoned four of six oil concession areas in the JDZ following disappointing oil exploration results, while two concessions in the JDZ have never even been developed at all.⁵³

In Madagascar, some mining activities have started – artisanal sapphire mining from the late 1990s and an ilmenite mine owned by the Anglo-Australian mining firm Rio Tinto which began production in March 2009. However, the formal mining sector had little impact on Madagascar's real economy since the 1990s until recently. According to the International Monetary Fund (IMF), Madagascar's mining sector made up 0.6% of GDP in 2010, compared with 0.5% in 1995.⁵⁴ Even if we count the artisanal sector in the informal economy, the mining share of GDP was estimated to be no more than 3%

⁵¹ Duffy, 'Global environmental governance and the challenge of shadow states'.

⁵² *Madagascar: Nouvel eldorado des compagnies minières et pétrolières*.

⁵³ 'São Tomé e Príncipe – Total loss', *Africa Confidential* 54(19) (20 September 2013).

⁵⁴ IMF *Regional Economic Outlook – Sub-Saharan Africa* (IMF, Washington DC, October 2012), p.56.

in 2005⁵⁵, albeit artisanal mining had only limited impact on the rest of Malagasy society, as almost all of the sapphires, rubies and topaz extracted by illegal artisanal miners are believed to be exported tax-free outside the control of the Malagasy state.⁵⁶ In comparison, the tertiary sector, the agricultural sector and the manufacturing sector made up 53.9%, 28.4% and 11.1% of Madagascar's GDP in 2010, respectively.⁵⁷ The significance of natural resource extraction for Madagascar has remained limited. The sapphire boom in artisanal mining did not prove lasting, with sapphire production now reportedly declining.⁵⁸ Rio Tinto announced in early 2013 that it was scaling back on its plans and would only operate one mine in Madagascar rather than the scheduled three mines; by the end of 2013, Rio Tinto announced job losses at the remaining mine and a two month shut down in operations.⁵⁹ Indeed, economic reports stress that 'the country has yet to evolve from an artisanal mining nation'⁶⁰, while the World Bank noted in 2010 that 'Madagascar will *possibly* enter the ranks of resource-rich economies over the next two decades'.⁶¹

Therefore, we surmise that STP and Madagascar provide excellent case studies for investigating the impact of resource boom expectations in the absence of significant natural resource extraction and the approximate 15-year period ca. 1998-2013 provides the time frame for our investigation.

Economic impact of resource boom expectations

Expectations of future resource booms can assume tangible forms, given that foreign investors are willing to pay handsomely for exploration rights even without any tangible proof that resources are actually commercially viable. Most notably, it is customary for extractive companies to pay signature

⁵⁵ *The Economist*, 'Getting stoned – Madagascar' (30 July 2005).

⁵⁶ 'Madagascar - Plunder unabated', *Africa Confidential* 53(18) (7 September 2012).

⁵⁷ IMF *Regional Economic Outlook – Sub-Saharan Africa*, p.56.

⁵⁸ Andrew Walsh, 'After the rush: Living with uncertainty in a Malagasy mining town', *Africa* 82 (2012), pp. 235-251.

⁵⁹ Jessica Hatcher, 'The white stuff: Mining giant Rio Tinto unearths unrest in Madagascar', *Time* (8 February 2013); Industrial Global Union, 'Mass dismissals at Rio Tinto in Madagascar', <http://www.industrial-union.org/mass-dismissals-at-rio-tinto-in-madagascar>.

⁶⁰ S. Ismail, F. Lehmann and J-P. Lehmann, 'Markets, trade and investment in Madagascar', mimeo (Paris, 2011).

⁶¹ World Bank, 'Madagascar: Governance and development effectiveness review' (Report No. 54277-MG, Public Sector Reform and Capacity Building Unit Africa Region, World Bank, Washington DC, 2010), p.xiv.

bonuses for obtaining exploration licences from sovereign governments. Indeed, while STP and Madagascar did not produce any natural resources, both countries obtained sizeable speculative signature bonuses.

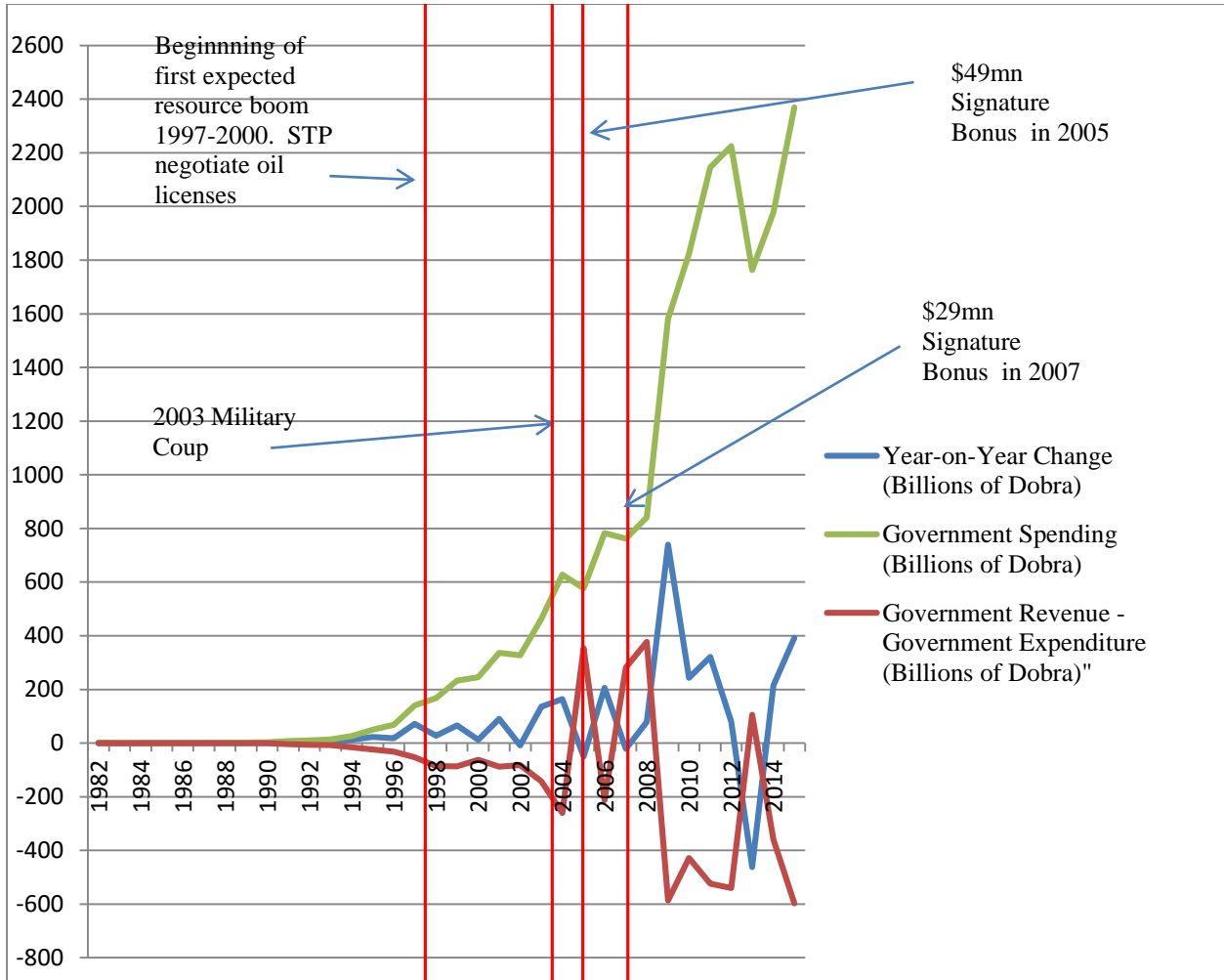
In STP, several oil companies including the US firm Chevron Texaco and China's Sinopec paid \$49 million (561.5 billion dobra) in signature bonuses in 2005 and \$29 million (413 billion dobra) in 2007.

⁶² This inflow of funds had a considerable economic impact, given that signature bonuses represented almost 43% of the country's GDP in 2005, and 20% of GDP in 2007.⁶³ Despite this windfall, government spending in 2005 and in 2007 actually fell compared to the previous year as seen in Figure 1. Instead, Figure 1 shows that, with spending having increased to record levels during 2003-2004 and 2005-2006, the government deficit was largest in 2004 and 2006 (i.e. the year preceding a windfall) despite previous praise from the IMF regarding fiscal management in 2002. To provide an idea of the relative scale of the change in government expenditure, Figure 2 shows that since 1996 (the year before the first deal with ERHC) government spending has increased from 24.1% to a peak of 58.7% of GDP in 2004. This evidence is consistent with the high resource expectations fuelling government spending argument but Figure 3 also illustrates the relatively high but increasingly volatile economic growth in this period. In Figure 4 we calculate this volatility by measuring the changes in the standard error of growth rates between time periods. A line that is close to the horizontal axis indicates small growth volatility across the decades, something that is considered a desirable macroeconomic objective. For STP though we find the line is volatile across the time period always well above or below the horizontal.

Figure 1. STP Government Expenditure (Billions of Dobra), Year-on-Year Change in Government Expenditure and Government Surplus/Deficit

⁶² IMF staff country report 06/349 (IMF, Washington DC, October 2006).

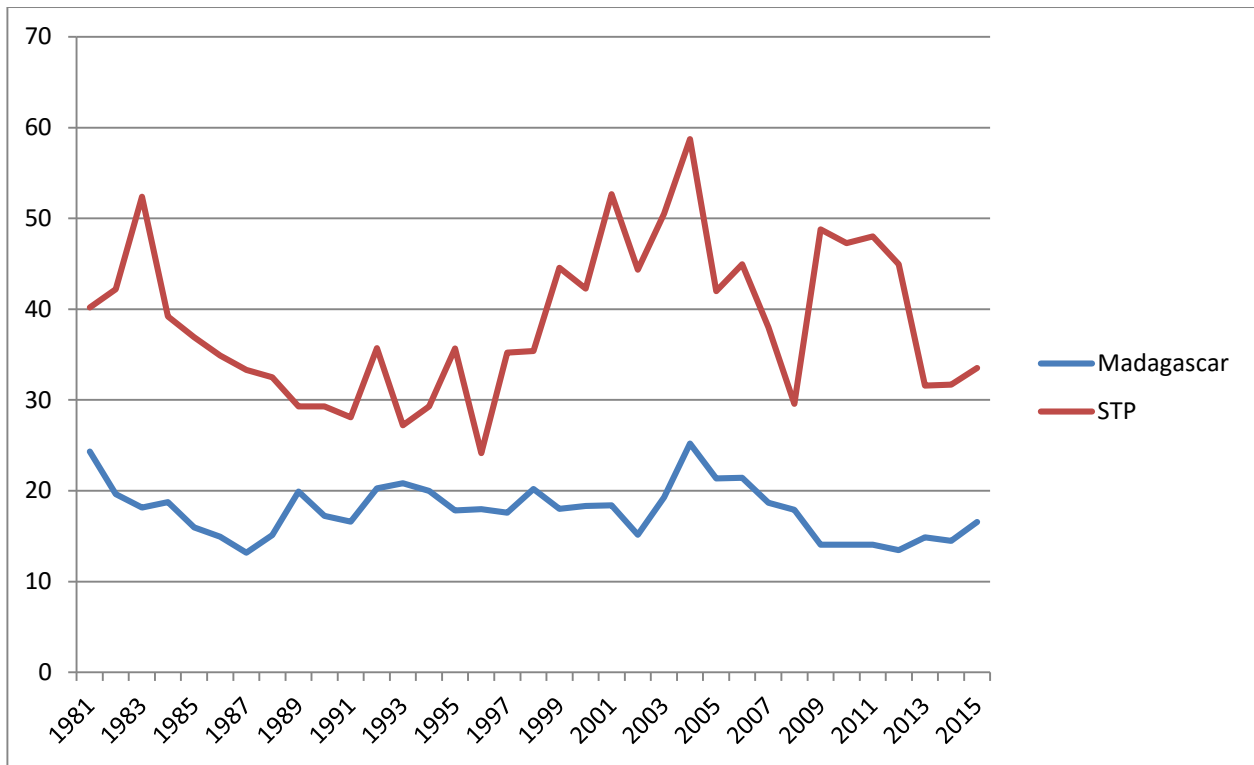
⁶³ IMF staff country report 12/34 (IMF, Washington DC, February 2012), p.6.



Source: World Economic Outlook Database, IMF at <http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx>.

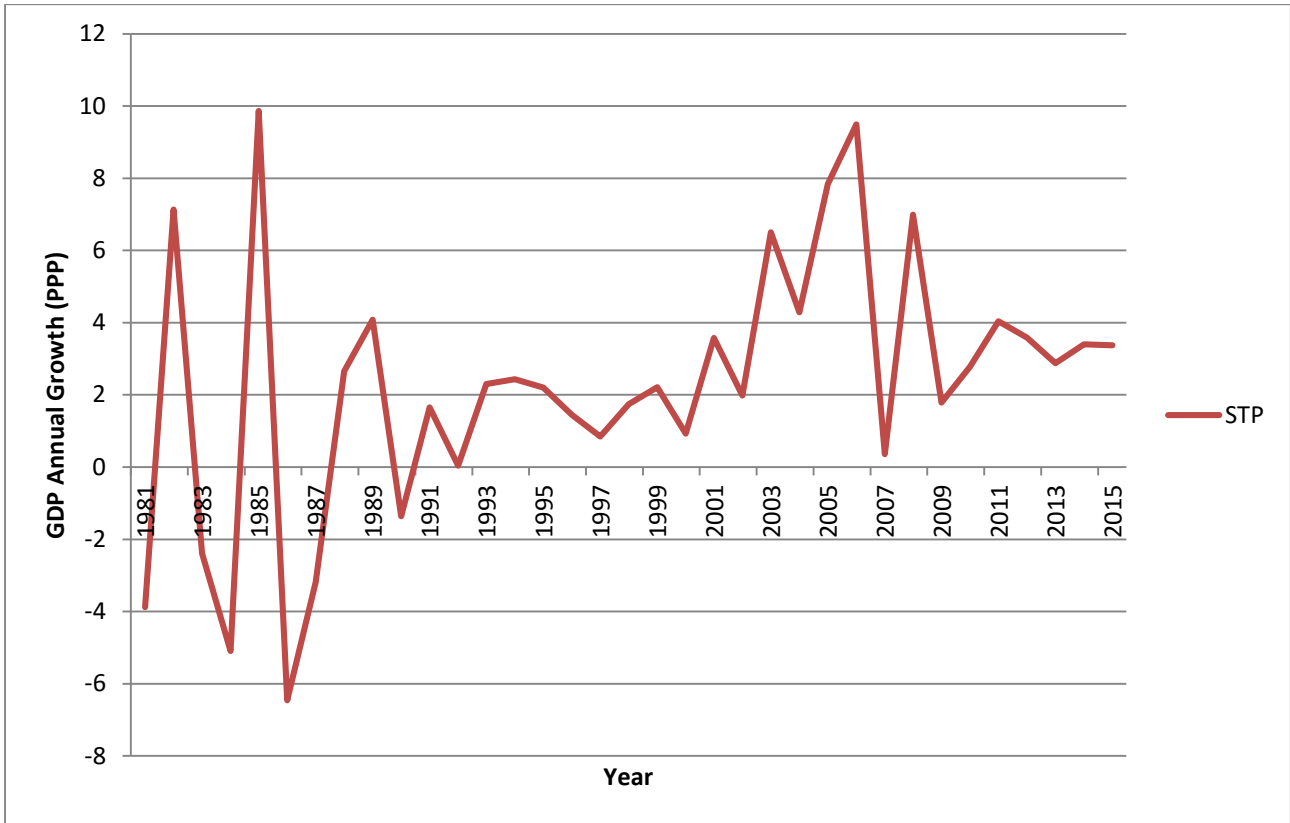
Note: From 2007-2009 STP secured large-scale debt relief from HIPC, MDRI and the Paris Club. Since this does not reflect revenue that can be spent we have removed this from the budget deficit (red line).

Figure 2. Government Expenditure as Percent of GDP



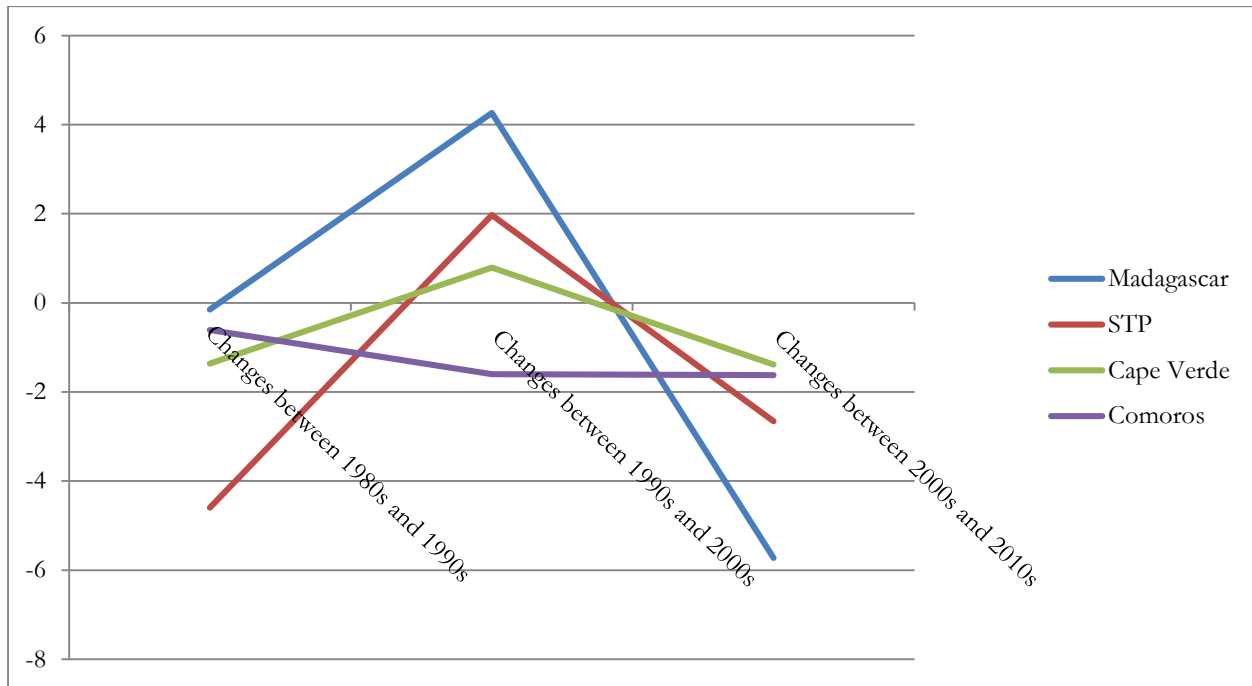
Source: World Economic Outlook Database, IMF at <http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx>

Figure 3. GDP Annual Growth Rates (PPP) in STP (1981-2015)



Source: World Economic Outlook Database, IMF at <http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx>

Figure 4. Economic Growth Volatility Changes across the Decades



Source: World Economic Outlook Database, IMF at <http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx>

The period before the first signature bonus of 2005 provides compelling evidence that government spending increased as a result of the prospect of signature bonuses and the not unreasonable anticipation of future oil revenues. The picture in 2007 is complicated somewhat by STP receiving large scale debt relief and that some of the increased government spending in 2006 could have been potentially caused by the expectation of this debt relief. However, while it is hard to know whether expected debt relief results in large increases in government expenditure, we can offer tentative evidence that this is not the case based on the experience of the large debt relief in 2009. Figure 1 illustrates a large increase in spending in 2009 but not immediately before, suggesting that any expected debt relief windfall could not be re-allocated before it was received. An obvious explanation is that – in marked contrast to signature bonuses – debt relief came with conditions to adopt sounder fiscal policies and to ensure money was spent on poverty reduction programs through a poverty

reduction strategy paper (PRSP), hence political decision-makers were less likely to anticipate that these payments would actually materialise.⁶⁴

The large nominal and relative increases in expenditure in 2009 and beyond (seen in Figures 1 and 2) were mainly funded by grants and overseas development aid in capital expenditure in support of the Public Investment Program. But STP remains vulnerable to debt distress because expected oil revenues have failed to materialise in the face of the withdrawal of several large oil exploration companies (the last of which was in 2013) and there were large government deficits in five of the six years between 2009 and 2014 as tax revenues declined.⁶⁵ The negative outlook for a resource boom has, as yet, had no impact on government spending because this has happened relatively recently. It is also harder to reduce government spending in the wake of negative resource-expectations, an argument supported by extensive scholarship in both economics and political science which suggests that it is considerably more difficult for governments to cut than to increase state spending, especially in politically unstable contexts.⁶⁶ Hence some inertia on behalf of the STP government response should be expected.

A comparison between STP and Cape Verde is instructive. Cape Verde is another island economy of similar size that shares a similar Portuguese colonial history, but lacks any natural resource prospects. Figure 4 demonstrates that growth in Cape Verde was much less erratic (closer to the horizontal) over the same time period thus offering further support to the adverse effects false resource-boom expectations can have on a country.

⁶⁴ The large increase in government spending stemmed from overseas development assistance in financing the public investment program (PIP) to improve infrastructure (e.g. telecommunications and transport), education and health. For more information see the IMF staff country report 14/9 (IMF, Washington DC, January 2014).

⁶⁵ IMF staff country report 14/2 (IMF, Washington DC, December 2013), p.33.

⁶⁶ See Alberto Alesina and Guido Tabellini, 'A positive theory of fiscal deficits and government debt', *Review of Economic Studies* 57, 3 (1990), pp. 403-414; Leonardo R. Arriola, 'Patronage and political stability in Africa', *Comparative Political Studies* 42 (2009), pp. 1339-1362; Wolfgang Streeck, 'The crises of democratic capitalism', *New Left Review* 71 (2011), pp. 5-29. Alesina and Tabellini note that the limits to the extent to which governments are able to impose government spending cuts are particularly pronounced when politics is more polarised and when a government's grip on political power is more tenuous, with the consequence that government spending cuts become less likely and debt levels will commensurately increase. Conversely, as Arriola points out, governments can buy stability through the co-optation of key interest groupings. Hence, particularly in unstable political contexts, it is considerably more difficult for governments to cut than to increase state spending.

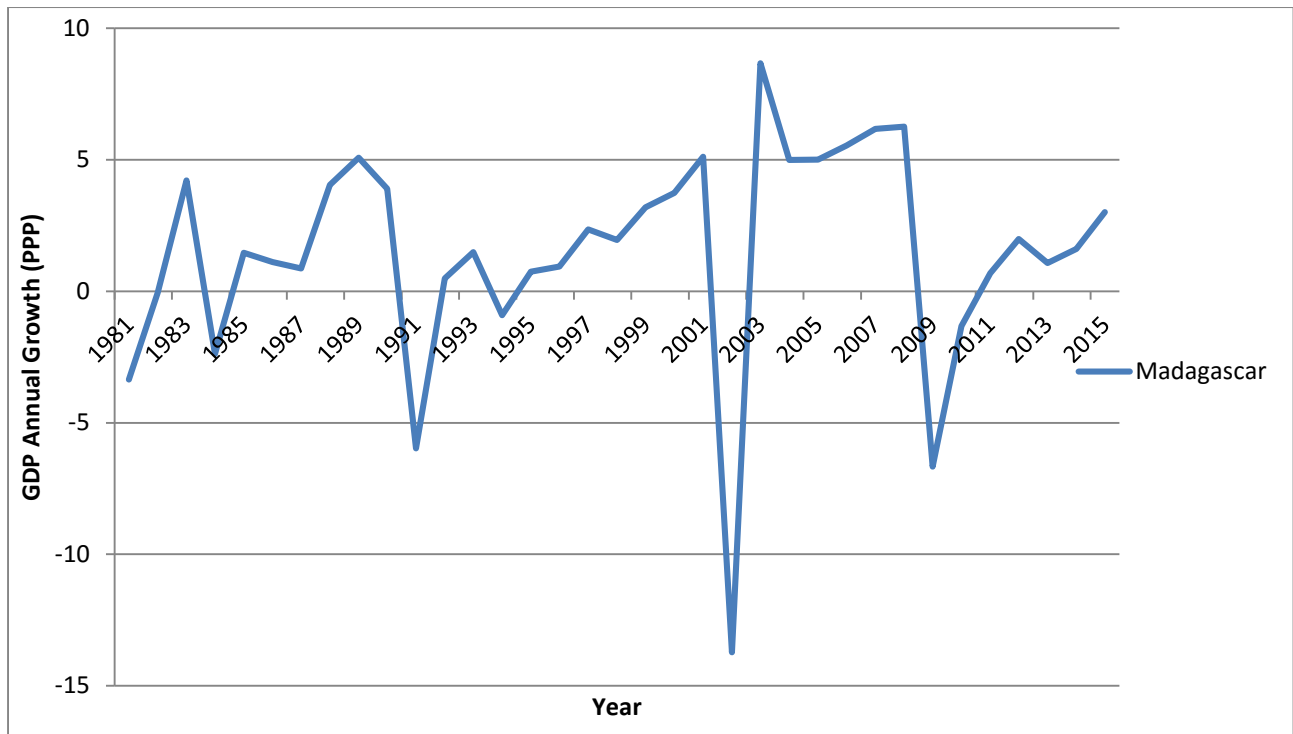
In Madagascar, signature bonuses were considerably larger than in STP. For example, the Wuhan Iron and Steel Corporation reportedly made signature bonus payments of \$140 million in 2010 for an iron ore exploration license.⁶⁷ However, unlike STP, signature bonuses have not been transparent in Madagascar (see the next section). A closer inspection of government revenue indicates a significant increase between 2009 and 2010 but that the 2009 political crisis resulted in a very steep decline in revenue and expenditure. We conclude that some of this signature bonus is reflected in the 2010 government revenue but that, because of the military coup in 2009, it is not possible to say whether there was an increase in government expenditure prior to 2010 based on an expected windfall and expected resource boom.

In Madagascar the expected sapphire boom contributed to a period of low but sustained economic growth from the mid-1990s to the 2002 political crisis (see Figure 5). Government spending as a share of GDP remained around 18 per cent in this period (see Figure 2) and year-on-year changes were modest and flat (see Figure 6) consistent with the fact the central government had no control over the artisanal mining practices as a source of extracting tax or of attracting signature bonuses. The story is different during the 2000s with the subsequent expected natural resource boom. Between 2003 and 2008 economic growth averaged 6.1% and nominal government spending increased threefold (Figure 6). Government spending spiked from 15 to 25% of GDP between 2002 and 2004 and remained over 21% until 2008 (Figure 2) consistent with the argument that an expected resource boom triggered both a nominal and relative increase in government spending. This period also saw an increase in the deficit between government revenue and expenditure. With the resource boom failing to materialise and in the wake of President Ravalomana's flight from Madagascar in March 2009 following a period of civil unrest the economy shrank significantly. This coincided with an increasingly large deficit caused by spending increases. Analysing Figure 5 in more detail it is clear that periods of economic prosperity tend to be followed by some period of uncertainty triggered by social unrest. Expected resource booms may well have contributed to the recent economic and social events in Madagascar.

⁶⁷ 'Miner's missing millions', *Africa-Asia Confidential* 5, 9 (July 2012).

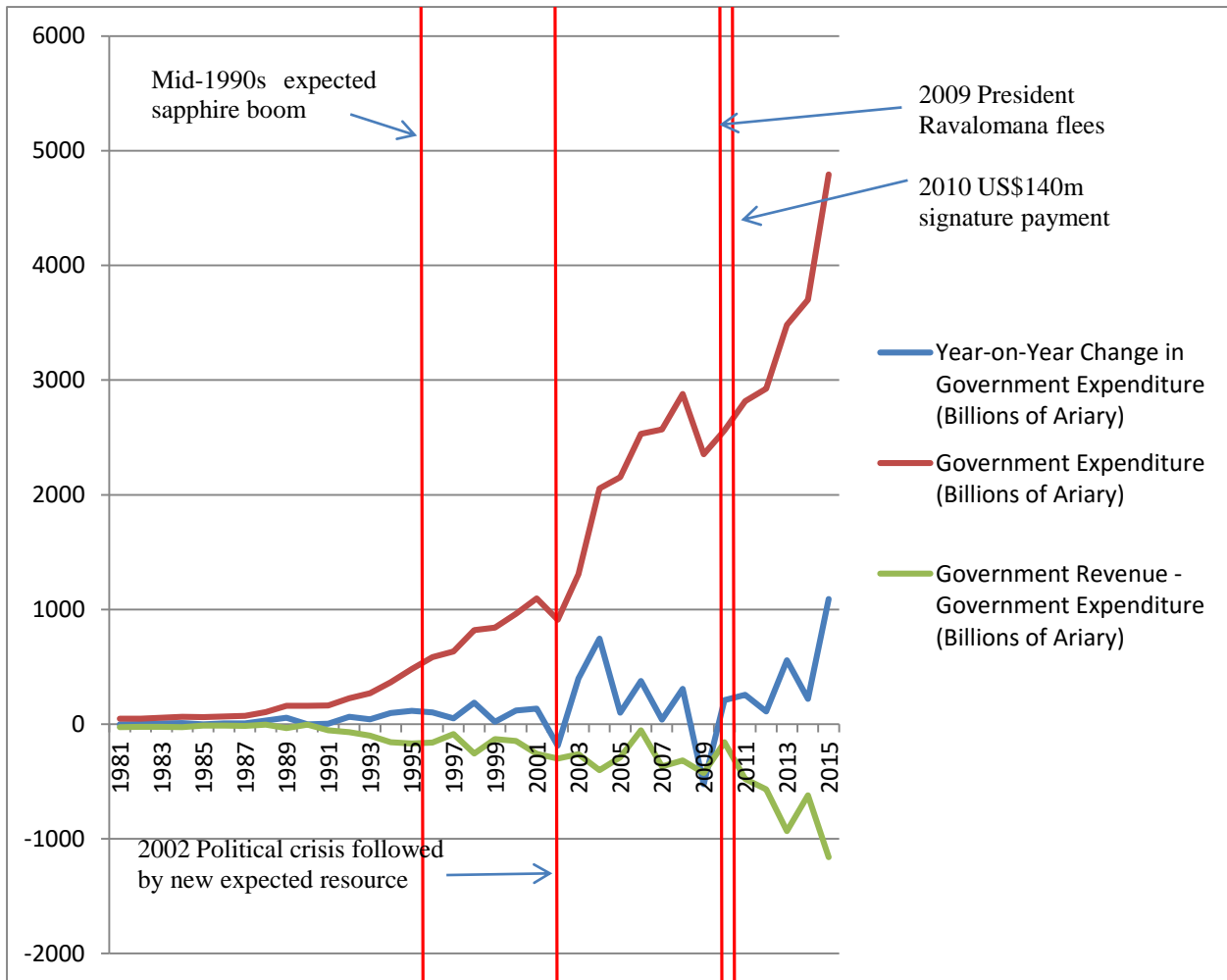
When we analyse growth volatility (Figure 4) we find this has increased over the decades but is also far more volatile when compared to another neighbouring island economy, namely Comoros.

Figure 5. GDP Annual Growth Rates (PPP) in Madagascar (1981-2015)



Source: World Economic Outlook Database, IMF at <http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx>

Figure 6. Madagascar Government Expenditure (Billions of Ariary), Year-on-Year Change in Government Expenditure and Government Surplus/Deficit



Source: World Economic Outlook Database, IMF at <http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx>.

Ultimately in both countries the prevalence of resource curse effects such as over-optimistic expectations about signature bonuses and other future benefits from a resource boom have contributed to periods of increased government spending and economic growth, but as hopes were dashed, to significant shrinkages, worsening deficits and, to different extents, greater economic and social volatility.

Governance impact of resource boom expectations

Expectations of future natural resources appear to have had an impact on governance in both STP and Madagascar by creating new state institutions. As one author noted with reference to STP, oil administration ‘has become, without a doubt, one of the most developed parts of STP’s public

administration today'.⁶⁸ STP created the Ministry of Natural Resources, the National Petroleum Agency, the Oversight Commission, the Public Information Office and the Joint Development Authority.⁶⁹ Likewise, Madagascar established the Ministry of Mines, the Office of the Mining Cadastre/BCMM, the National Mining Committee, the Office of National Mines and Strategic Industries/OMNIS and the Mining Police Force.⁷⁰ The creation of these institutions was largely intended to improve the effectiveness and transparency of state institutions charged with overseeing natural resource development. Yet, while these institutions absorbed significant state funding and decision-maker attention in the absence of significant resource extraction, they failed to arrest the fall in the perceptions of governance in both countries (see discussion of Figure 7 below).

One methodological problem of evaluating the governance impact of resource extraction is the hidden nature of corrupt dealings that may be an integral part of transactions with government but may not be known or prosecuted. However there is an extensive theoretical and empirical literature that explores opportunities for corruption amongst public officials and political incumbents⁷¹. Resource inflows but in particular signature bonuses offer at least two clear opportunities for corrupt behaviour in public office. Firstly if there is a competitive bidding process for signature bonuses then principal-agent problems arise whereby all bidders can be extorted by the political incumbents who grant these bonuses or corrupt deals are done that benefit both parties. Secondly, the revenue can be seized by political incumbents who exploit their first mover advantage, given the risk of being ousted by an opposition grouping by either democratic or undemocratic means.⁷² In other words, incumbents have an interest in exploiting and magnifying expectations, in order to maximise their rents, given

⁶⁸ Weszkalnys, 'Anticipating oil', p.218.

⁶⁹ Ibid.

⁷⁰ World Bank, 'Madagascar: Governance and development effectiveness review'.

⁷¹ For early theoretical work see Susan Rose-Ackerman, *Corruption: A study in political economy* (Academic Press, New York, 1978) and Robert Klitgaard, *Controlling corruption* (University of California Press, Berkeley, 1988). For empirical evidence of government embezzlement and 'kick-back' payments, see e.g. Ritva Reinikka and Jakob Svensson, 'Local Capture: Evidence from a Central Government Transfer Program in Uganda', *Quarterly Journal of Economics* 119, 2 (2004), pp. 679–706; Chang-Tai Hsieh and Enrico Moretti, 'Did Iraq cheat the United Nations? Underpricing, Bribes, and the Oil and Food Program', *Quarterly Journal of Economics* 121, 4 (2006), pp. 1211–1248.

⁷² Richard Damania and Erwin Bulte, 'Resources for sale: Corruption, democracy and the resource curse' (Centre for International Economic Studies, University of Adelaide, 2005), pp.1-41; c.f. Larry Diamond and Jack Mosbacher, 'Petroleum to the people: Africa's coming resource curse - and how to avoid it', *Foreign Affairs* 92 (September-October 2013), p. 86.

future uncertainties around their position. Hence, although corruption may increase political instability, the latter is likely to enhance the incentives to be corrupt.⁷³

In STP, expectations of future oil resources appear to have, indeed had a significant impact on the nature of corruption as the opportunities for rent seeking and corrupt behaviour among government officials reportedly shifted from a previous focus on foreign aid towards a focus on oil sector payments.⁷⁴ Sao Tomese politics are characterized by frequent changes in legislative majorities, giving incumbent politicians a strong incentive to maximise rents whilst in office. Writing in 2005, one observer argued that oil prospects in STP opened the risk of elites succumbing to ‘the lure of quick and easy money’.⁷⁵ Indeed, one economic study specifically found that corrupt rent seeking behaviour in STP has increased as a result of expectations of a future oil boom and there was an accompanying change in the allocation of public resources, for example, by increasing the government’s allocation of foreign scholarships which are regarded as facilitating future political power.⁷⁶ Weszkalnys argues that a ‘politics of anticipation emerged’, testing weak political institutions to their limit, with ‘bad oil mapping out its own political space’⁷⁷ – this led to the assembly of ‘multiple entities for managing oil’ and also suspicion, uncertainty, and instability⁷⁸.

Already the early choice of the small, unknown firm ERHC as a partner in 1997 was highly controversial, as ERHC was granted the right to four oil blocs of its choice despite being ‘on the brink of bankruptcy’ and unable to fully pay the full amount it owed to the government.⁷⁹ ERHC lacked

⁷³ Daniel Treisman, ‘The causes of corruption: a cross-national study’, *Journal of Public Economics* 76, 3 (2000), pp. 399-457.

⁷⁴ Frynas, Wood and Oliveira, ‘Business and politics in São Tomé e Príncipe’.

⁷⁵ Glenn Brigaldino, ‘Oil boom or bust ahead for Sao Tome et Principe’, *Review of African Political Economy* 32 (2005), pp. 185-197, at p.186.

⁷⁶ Vicente, ‘Does oil corrupt?’.

⁷⁷ Weszkalnys, ‘Anticipating oil’, p. 217.

⁷⁸ *Ibid.*, p. 231.

⁷⁹ Gerhard Seibert, ‘Sao Tome et Principe: The difficult transition from international aid recipient to oil-producer’, in Matthias Basedau and Andreas Mehler (eds), *Resource politics in Sub-Saharan Africa* (Institut für Afrika-Kunde, Hamburg, 2005), at p.227.

financial resources or the technical expertise to exploit ultra-deep water oil and gas reserves but this was made up for by close ties to prominent politicians.⁸⁰

Following a bitter dispute between ERHC and the STP government, a controlling interest in ERHC was purchased by the Nigerian Chrome consortium. While the agreement between the government and ERHC was re-negotiated in 2001, the new agreement was still exceedingly favourable to the Chrome consortium, including the option to acquire a 15% share in two oil blocks of Chrome's choice in the JDZ and a 100% share in two oil blocks in the country's Exclusive Economic Zone without paying any signature bonus, which was most unusual and to the country's disadvantage.⁸¹ During the licence bidding rounds, STP came under intense pressure from Nigeria to grant a significant amount of the acreage to small, inexperienced Nigerian firms, such as Momo Oil and Godsonic Oil and Gas with close ties to the Nigerian presidency.⁸² The Nigerian business interests in STP were accused of major irregularities - the government's most senior public servant declared that he could not find any record of any payments from the JDZ with Nigeria to the treasury in 2009, albeit payments were supposedly made.⁸³

The influx of oil-related payments has influenced the wider political process in STP, starting with the 2001 and 2002 elections when Nigerian, Angolan and Taiwanese interests funded political parties. It has been argued that 'vote-buying has increasingly become an integral part of electoral competition in the impoverished archipelago',⁸⁴ and – more importantly – that increased political vote buying has been 'indicative of increased competitiveness for state resources' as a result of expectations of a future oil boom.⁸⁵ For example, there were strong allegations that Emeka Offor of Chrome oil supported President Trovoada's election campaigning by the early 2000s.⁸⁶ In general, it has been argued that 'it

⁸⁰ Ibid, at p.241.

⁸¹ Frynas, Wood and Oliveira, 'Business and politics in São Tomé e Príncipe'.

⁸² John Ghazvinian, *Untapped: The scramble for Africa's oil* (Houghton Mifflin, Orlando, 2007), p.230.

⁸³ 'São Tomé e Príncipe - The candidates line up', *Africa Confidential* 52, 8 (15 April 2011).

⁸⁴ 'São Tomé e Príncipe - Pinto da Costa back in office', *Africa Confidential* 52, 17 (26 August 2011).

⁸⁵ Vicente, 'Does oil corrupt?', p.29.

⁸⁶ Frynas, Wood and Oliveira, 'Business and politics in São Tomé e Príncipe'.

is perhaps more than a coincidence that the prospect of the first petro-dollars coincided with more expensive political campaigning and the entry of new actors'.⁸⁷

In Madagascar, the governance impact of the first wave of future resource boom expectations was relatively limited due to the artisanal nature of the sapphire sector. As the World Bank observed, in contrast to sectors such gold and rosewood where the Malagasy political elites were able to control well-developed networks and capture resource rents, 'sapphire rushes have created open-access to rents for newcomers, beyond the control of elites'.⁸⁸ Most sapphire miners worked without government permits, there were many independent middlemen and there were many foreign buyers from different countries.⁸⁹ In 1999, the Malagasy government banned the award of sapphire permits, dubbed by the World Bank as 'an ill-designed decision by a partially blind central state'.⁹⁰ The permit ban lasted until 2005 and further prevented the political elites from controlling the sapphire sector.

The second wave of resource boom expectations from 2003 had a more substantial impact on governance in Madagascar. All access to iron, ilmenite or other extractive exploration areas was regulated by a government-administered permit system. The number of government permits to extractive companies increased from ca. 30 permits awarded in 2002 to well over 1300 awarded in 2008.⁹¹ By 2009, the growth in awarded permits represented some 216,000km² or more than 35% of Madagascar's total surface area.⁹² In 2008 and 2009, the government reportedly collected revenues of about 10 billion ariary (about \$5 million) from the mining administrative fee.⁹³ While this amount is relatively low and one would nominally expect much greater revenues from licensing, recent research provides a possible explanation in that sub-optimal separation of powers among government regulators responsible for natural resource licensing may be driving high levels of corruption and rent seeking opportunities in resource-rich countries – in other words, many payments for licences may

⁸⁷ Ibid at p.70.

⁸⁸ World Bank, 'Madagascar: Governance and development effectiveness review', p.55.

⁸⁹ Ibid., Annex IV.

⁹⁰ Ibid., p.112.

⁹¹ Ibid., p.41.

⁹² Ibid., p.40.

⁹³ Ibid., pp.40-41.

have been made as unreported bribes.⁹⁴ Hence, licencing most likely represented an increase in rent seeking opportunities for the Malagasy political elite, albeit it is not possible to obtain any tangible evidence of their scale.

Until 2005-2006, the permit system was reportedly administered in a relatively transparent manner. By 2006, the World Bank noted that ‘political interference in mining right management, sometimes in open violation of existing regulations, have called into question the transparent governance of mining rights’.⁹⁵ For example, gold mining rights were awarded by presidential decree to an entity under the control of the military in 2006 under highly dubious circumstances, while the terms of a previously transparent auction for iron ore permits were amended in 2008 and became highly opaque.⁹⁶ It would appear that corrupt rent seeking continued following the 2009 coup. As a notable illustration, the Malagasy government claimed to have received \$100 million from the Wuhan Iron and Steel Corporation in 2010, but the Chinese company later protested that they actually paid \$140 million.⁹⁷ Indeed, the 2009 coup represented a transition from a Malagasy state dependent on foreign aid (almost 70% of government revenues in 2008) towards a reliance on rent seeking opportunities related to natural resources and future expectations of natural resource booms, given that international aid to Madagascar was mostly frozen following the coup. The World Bank commented in 2010 that ‘by limiting the need for revenue collection e.g. through taxation, mining revenues risk further weakening the accountability of the Malagasy state to its citizens and further undermining the capacity of state institutions’.⁹⁸

In both countries, it is clear from the above that the prevalence of resource curse effects on governance was already apparent before either country started producing any significant resources. This story is corroborated by governance indicators in Figure 7. These show that for both Madagascar and in particular STP governance has always been perceived as poor but has certainly worsened from

⁹⁴ Luca J. Uberti, ‘Is separation of powers a remedy for the resource curse? Firm licensing, corruption and mining development in post-war Kosovo’, *New Political Economy* 19 (2014), pp. 695-722.

⁹⁵ *Ibid.*, p.41.

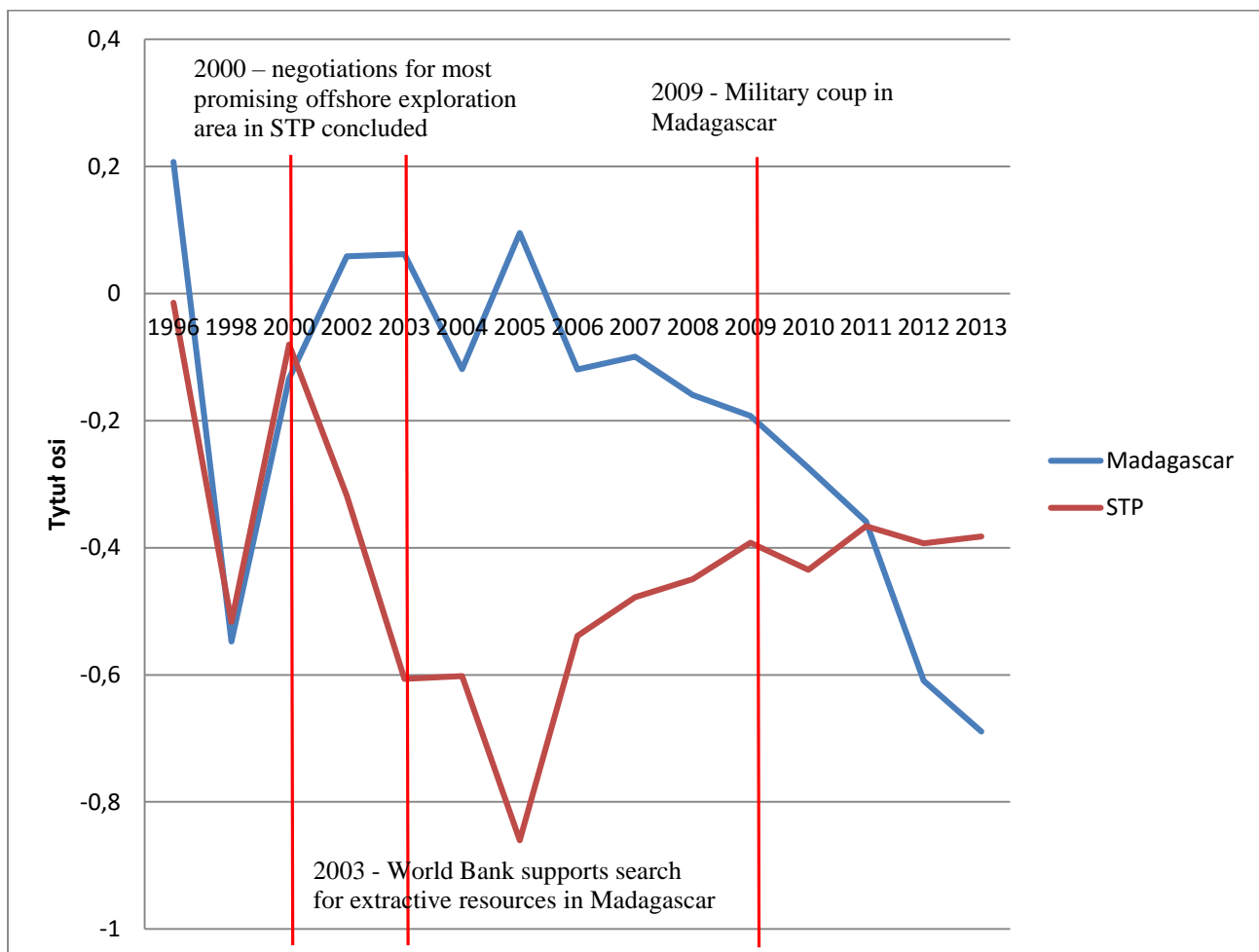
⁹⁶ *Ibid.*, p.42.

⁹⁷ ‘Miner’s missing millions’, *Africa-Asia Confidential* 5, 9 (July 2012).

⁹⁸ World Bank, ‘Madagascar: Governance and Development Effectiveness Review’, p. xiv.

around the onset of expectations of future resource booms (after 1997 in STP and after 2003 in Madagascar). There were obvious differences between both countries owing to their different historical and political trajectories. With regards to STP, it has previously been argued in this journal that the ‘strong social bonds [within the small elite of the country] and pressures and the absence of a large number of groups for sharing the pay-offs made plunder more feasible’.⁹⁹ In contrast, the political elite in Madagascar was broader and considerably more prone to violent intra-elite conflicts (see section below). However, while there were different mechanisms of conflict and accommodation in STP and in Madagascar, perceptions of corrupt rent seeking behaviour appear to have increased in both countries as a result of expectations of future resource booms.

Figure 7. Perceptions of Governance in Madagascar and STP



Source: Worldwide Governance Indicators, World Bank

⁹⁹ Frynas, Wood and Oliveira, ‘Business and politics in São Tomé e Príncipe’, p.77.

In recent years, however, there was a divergence of expectations in the two countries. In Madagascar, expectations of future resource booms have increased and were partly confirmed by the actual presence of Rio Tinto (see above). The accountability of government institutions further diminished, as demonstrated most notably by the removal of the de facto authority of BCMM by the executive branch of Madagascar's government after 2009. In marked contrast, in STP, expectations of future resource booms have declined after disappointing results from deep-sea oil explorations. These factors have led to the departure of major foreign oil companies (Exxon, Chevron, Sinopec) the last being Total in 2013. The 2014 IMF staff country report on STP praised the new coalition government that came into office in December 2012 for 'the pursuit of sound financial policies' in the face of "more uncertain oil prospects", pointing to their commitment to fiscal prudence and a series of undertaken and planned financial reforms (related to fiscal administration improvement, tax payments, bank transparency, etc.).¹⁰⁰ In other words, the decreased expectations in STP appear to have forced the STP government to increasingly initiate fiscal reforms and to focus on non-oil sectors. These recent developments can help to explain the divergent perceptions of governance in the two countries from the late 2000s – a deterioration of perceived governance in Madagascar, and a slight improvement in STP (see Figure 7).

Conflict impact of resource boom expectations

Natural resources enhance the political stakes, and may arguably create a distinct 'political ecology'.¹⁰¹ If, as noted above, politicians and government officials in unstable political environments have a greater incentive to capitalise on their first mover advantage through corruption, opposition factions have greater incentives to seize power, and may issue promises to excluded commercial interests in return for support. Indeed, a 2010 study by Lujala found that oil and gas reserves, whether

¹⁰⁰ IMF staff country report on STP 04/108 (IMF, Washington DC, April 2004).

¹⁰¹ Le Billon, 'The political ecology of war: natural resources and armed conflicts'.

exploited or not, can worsen conflicts, as competing players seek to mould or pre-empt the consequences of future distributions.¹⁰²

Expectations of future resource booms only started to exert impacts on political decision-making in STP from the late 1990s and in Madagascar after 2003, as outlined in the previous section. One could make a counter-factual argument that it was precisely because resource expectations were low before the late 1990s that peaceful democratization was possible in both countries. Echoing previous well-known findings by Michael Ross that petroleum exports are strongly associated with authoritarian rule¹⁰³, research by Jensen and Wantchekon found a negative correlation between the presence of a sizable natural resource sector and the level of democracy in Africa. They concluded that post-Cold War democratic reforms in Africa have been successful only in resource-poor countries such as Benin, Mali and Madagascar.¹⁰⁴

Following this argument, given that both STP and Madagascar lacked a sizeable natural resource sector, one would potentially expect them to be more stable and democratic than resource-rich countries in Africa. Indeed, it has been observed that the political competition in STP was extremely peaceful until the 1990s and ‘even the military coup in 1995 was a mostly bloodless event and was quickly resolved in a peaceful manner, ending with the restoration of civilian rule’.¹⁰⁵ Madagascar experienced more violent conflicts, most notably the 2002 stand-off between the two presidential candidates Ravalomanana and Ratsiraka, which saw the emergence of rival militias that engaged in sporadic violence. But the 2002 crisis ended peacefully with a return to the rule of law and democracy, and it was pointed out at the time that Madagascar’s rulers had strong incentives to sustain political stability and to base the country’s wealth creation on ‘the low cost of labour’, given that ‘Madagascar possesses few strategic commodities’.¹⁰⁶

¹⁰² Lujala, ‘The spoils of nature’.

¹⁰³ Michael L. Ross, ‘Does oil hinder democracy?’, *World Politics* 53 (2001), pp. 325–361.

¹⁰⁴ Nathan Jensen and Leonard Wantchekon, ‘Resource wealth and political regimes in Africa’, *Comparative Political Studies* 37 (2004), pp. 816–841.

¹⁰⁵ Frynas, Wood and Oliveira, ‘Business and politics in São Tomé e Príncipe’, p.78.

¹⁰⁶ Randrianja, ‘“Be not afraid, only believe”: Madagascar 2002’, p. 329.

Following the logic of the resource curse, one would expect that the expectations of future resource booms have introduced a distortion of the political landscape by raising the stakes of political competitions, as the political actors expected to obtain access to natural resource rents in future. In particular, one would expect that future expectations would have played an important role in major disturbances: the 2003 coup in STP and the 2009 coup in Madagascar – which we briefly discuss below.

The 2003 coup in STP was primarily a direct response to non-oil related factors, above all, a small group of highly trained ex-soldiers facing economic hardship and poor pay and working conditions in the Saotomean army. It was no more violent than the previous 1995 coup, which happened before the rise of future oil expectations.¹⁰⁷ However, while natural resources was not the main driving force, the coup reflected, at least in part, a product of interest in potential oil revenues and the prospects of easy wealth, and the belief that a few senior politicians had bought luxury cars for their secretaries and children, whilst most remained poor.¹⁰⁸ The expectations of a future oil boom also influenced the timing of the coup, given that ‘the rebels wanted to denounce the unequal distribution of the country’s resources before the oil revenue arrived’ and they were aware of the ‘possibility that, after the arrival of the first petrodollars, the government would be able to buy off any potential opposition’.¹⁰⁹

The coup plotters’ demands also provide indications that the 2003 coup was at least partly motivated by the greed related to oil-related rent seeking in STP. Daunted by the challenges of political power, the coup plotters stepped down one week later in return for an amnesty and in return for signing an agreement with the government. The agreement largely reflected the economic demands of the soldiers involved, while it was significant that ‘political demands were either absent or remained rather vague’.¹¹⁰ The agreement provided, among others, the army’s supreme command with access to information about the oil sector. According to a well-informed São Tomé expert, ‘this provision

¹⁰⁷ On the 2003 political crisis, see Gerhard Seibert, ‘The bloodless coup of July 16 in São Tomé e Príncipe’, *Lusotopie* (2003), pp. 245-260.

¹⁰⁸ Ghazvinian, *Untapped: The scramble for Africa’s Oil*, p. 227; Afrol News, ‘Sao Tome Coup is over’ (23 July 2003), available at <http://afrol.com/articles/10323>.

¹⁰⁹ Seibert, ‘The bloodless coup of July 16 in São Tomé e Príncipe’, p.260.

¹¹⁰ *Ibid.*, p.257.

reflected both the military's concerns regarding the lack of transparency with regard to the oil sector and their intention to participate in the expected oil rush'.¹¹¹

The 2009 coup in Madagascar, in which soldiers seized key sites and installed the mayor of Antananarivo Andry Rajoelina as the country's president, was primarily a direct response to non-oil related factors, above all, dissatisfaction of mutinied soldiers and a long-standing conflict between Andry Rajoelina and the country's president Marc Ravalomanana.¹¹² However, government actions after 2009 provide indications that the prospects of natural resources provided strong incentives for the coup leaders to stay in power, particularly given reduced overseas aid. As one of its first notable policy decisions following the coup, the new government removed the de facto authority of BCMM (an arm's-length agency under the authority of the Ministry of Mines) for allocating extractive permits, and henceforth permits were decided directly by the executive branch of the government through the Minister of Mining. Furthermore, in January 2010, the Ministry of Mines passed a decree that doubled the level of mining administration fees in violation of the country's mining code.¹¹³ While we will ultimately not be able to know retrospectively how important future natural resource revenues were in the decision-making process, these actions provided a clear evidence that the coup leaders anticipated future resource income. According to the World Bank, 'commitments within the dominant elite coalition are fluid and unstable, shocks can easily lead to violence and the rise of new coalitions'.¹¹⁴

In summary, natural resources were not necessarily the primary motives for the coups in STP and in Madagascar, the motives for coups were inevitably complex and we do not have any solid evidence on the cognition of actors involved in the conflicts. Nonetheless, there are indications that first-mover incentives in anticipation of future resources have, at least partly, fuelled the activities of potential coup leaders and other violent forms of political opposition, as predicted by the resource curse thesis. At this point, while we still need to be cautious about our conclusions on the link between future expectations and conflict, there are first mover incentives for power seekers who are able to issue

¹¹¹ Ibid., p.257.

¹¹² On the 2009 political crisis, see Solofo Randrianja, *Madagascar, le coup d'état de mars 2009* (Karthala, Paris, 2012).

¹¹³ World Bank, 'Madagascar: Governance and development effectiveness review'.

¹¹⁴ Ibid., p. xviii.

‘promissory notes’ to commercial interests seeking to gain minerals concessions in times of resource hype, and in turn, are able to secure greater financial muscle behind their endeavours.

Conclusions

We do not hold a deterministic view of resource curse effects. We do not argue that resource curse effects are inevitable; and there is important counter evidence in the case of some countries¹¹⁵ and for specific periods of time¹¹⁶. On the one hand, the quality of societal governance may help to reduce resource curse effects such as by reducing the scope for corruption.¹¹⁷ On the other hand, skilful government policies have the potential to reduce resource curse effects.¹¹⁸ A recent study in this journal suggested that Ghana may possibly combine both a good quality of societal governance and skilful government policies that will help to shield the country from resource curse effects.¹¹⁹ At the same time, there is evidence not only that historically high and volatile commodity markets are associated with greater speculative activity¹²⁰, but, indeed, that the effects of the resource curse have worsened since the early 1990s¹²¹. The long energy transition in turn, has particularly encouraged

¹¹⁵ Mehlum, Moene and Torvik, ‘Institutions and the resource curse’; Robinson, Torvik and Verdier, ‘Political Foundations of the Resource Curse’.

¹¹⁶ Alexeev and Conrad, ‘The elusive curse of oil’; Haber and Menaldo, ‘Do natural resources fuel authoritarianism? A reappraisal of the resource curse’.

¹¹⁷ Studies show that, for example, free media or transparency in revenue and expenditure flows reduce the scope for corruption and generating political budget cycles. Timothy Besley and Andrea Prat, ‘Handcuffs for the grabbing hand? Media capture and government accountability’, *American Economic Review*, 96 (2006), pp. 720-736; James E. Alt and David Dreyer Lassen, ‘Fiscal transparency, political parties, and debt in OECD countries’, *European Economic Review* 50 (2006), pp. 1403-1439. See also Mehlum, Moene and Torvik, ‘Institutions and the resource curse’.

¹¹⁸ Government policies can, for example, insulate the economy from resource curse effects by creating a ‘revenue stabilization’ or ‘savings fund’ or can help to diversify the country’s economic base by investing in non-resource sectors. Paul Stevens, ‘Resource curse and how to avoid it’, *Journal of Energy and Development* 31 (2005), pp. 1-20; Stella Tsani, ‘On the relationship between resource funds, governance and institutions: Evidence from quantile regression analysis’, *Resources Policy* 40 (2015), pp.94-111. See also contributions in Macartan Humphreys, Jeffrey D. Sachs and Joseph E. Stiglitz, *Escaping the resource curse* (Columbia University Press, New York, 2007).

¹¹⁹ Dominik Kopiński, Andrzej Polus and Wojciech Tycholiz, ‘Resource curse or resource disease? Oil in Ghana’, *African Affairs* 112 (2013), pp. 583-601.

¹²⁰ Wood and Lane, ‘Institutions, Change and Diversity’; Lane and Wood, ‘Capitalist diversity’; Gail Tverberg, ‘Oil supply limits and the continuing financial crisis’, *Energy* 37 (2012), pp. 27-34.

¹²¹ Andersen and Ross, ‘The big oil change’.

financially reckless behaviour around the possibility of future petroleum windfalls¹²², which in turn, may impact on countries and how they are governed.

We investigated the impact of future expectations of resource booms. We found that both STP and Madagascar have experienced at least some resource curse effects even without the actual exploitation of substantial resources. The resource curse effects were most evident with regards to economic and governance issues including volatile economic growth and governance. In other words, our findings suggest that it is indeed possible to experience at least some dimensions of the resource curse as a result of excessive hype. The extractive industries' tendency to regularly make breathless announcements of massive natural resource prospects that rarely live up to the full initial promise may thus have far more malign effects than simply on gullible investors and creditors.

Past empirical research focused almost exclusively on the tangible presence of natural resources and a country's relative dependence on natural resource income or exports as key indicators, while neglecting the importance of future expectations. Future studies may fruitfully develop research methodologies for measuring expectations and comparing them between different localities, to better account for the variability of resource curse effects between countries and help provide recommendations on how to reduce resource curse effects.

¹²² Heinberg, *Snake Oil*; Antonie Kotze. 'Debt, defaults and crises: A historical perspective', available at SSRN 2587342 (2015).