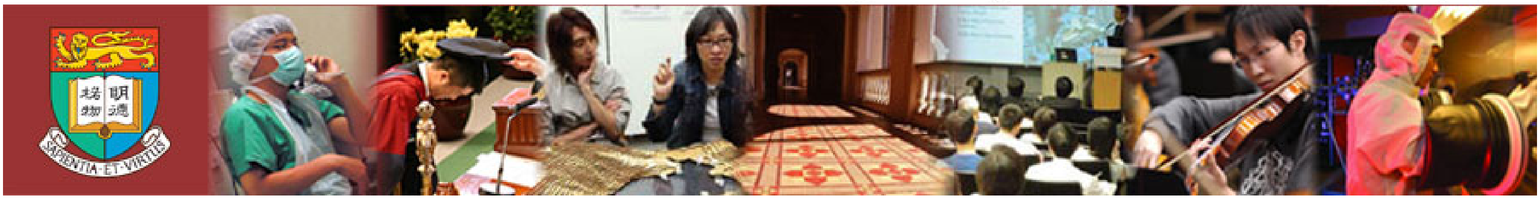

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Author(s)	Lam, Chak-man, Jack; Wan, Zee-ngan, Fiona; Wong, Oi-lam, Olive; Yeung, Yam-yam
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Will oil price crash destabilize petro-states? A study of oil price crashes in 1985-1986 and 2014-2015 and the impacts on the political stability of Petro-states: Venezuela, Algeria, The Soviet Union/Russia, Saudi Arabia and Indonesia

Jacky LAM (3035163368)

YEUNG Yam Yam (2005207354)

Fiona WAN (2009913327)

Olive WONG (2005626756)

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The University of Hong Kong

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I declare that this Capstone Project Report, entitled "Will oil price crash destabilize petro-states? A study of oil price crashes in 1985-1986 and 2014-2015 and the impacts on the political stability of Petro-states: Venezuela, Algeria, The Soviet Union/Russia, Saudi Arabia and Indonesia", represents our own work, except where due acknowledgment is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or any other institution for a degree, diploma or other qualification.

Jacky LAM

YEUNG Yam Yam

Fiona WAN

Olive WONG

Abstract

Petro-states are vulnerable to sudden oil price crashes because of their over-reliance on oil revenue to fuel their economic growth, stabilize currency rate and finance their government spending. A drastic oil price slump will cause the oil wealth of petro-states to swiftly dissipate, forcing the affected countries to confront the underlying fragility of their economies and run the real danger of economic collapse. This paper attempts to establish the theory that an oil price crash will make petro-states spiral into economic demise and political instability.

This paper will use the case study of the 1985 oil price crash to demonstrate the validity of the theory. It will highlight the impact of the declining oil wealth on the five petro-states, namely Venezuela, the Soviet Union, Algeria, Saudi Arabia and Indonesia. Our theory will show the importance of two essential factors: fiscal reserves and economic diversification. It postulates that petro-states may only escape economic catastrophe and political turmoil if either one of the two pivotal factors is present. Since the 2014 oil price crash bears stunning similarity to the 1985 crisis. We will apply the theory to analyze the situation of today. While Indonesia is immune to oil price crash, Russia, Saudi Arabia and Algeria are all suffering various degrees of economic backlash and looming political woes. Our conjecture indicates that Venezuela is now suffering the worst economic crisis in its history. Political instability is bound to take place in this petro-state.

Introduction

A petro state's survival in some cases is almost entirely dependent on steady and lucrative oil revenue. They are able to rest on their own laurels and cling to the notion that oil earnings will grease the wheels of economy and contribute to incomes to sustain the economic development and political stability of their regime. However, oil revenue is a double-edged sword which can destabilize a regime when oil prices crash.

The drastic movement of oil prices from peak to trough since June 2014 has taken the global oil market aback and sent shock waves through all the petro-states. As the energy economist Douglas Reynolds put it, oil price shock stops an economy the same way as an empty fuel tank stalls a car.[1] The price crunch has caused the oil wealth of petro-states to swiftly dissipate, forcing the affected countries to confront the underlying fragility of their economies and run the real danger of economic collapse.

When petro-states find themselves stuck in a worn-out economy, the impact will be detrimental not just on the economic front but also in terms of political stability. Nevertheless, there is a dearth of research regarding how an oil price crash will affect the petro-states from the viewpoint of political stability or the connection between petro-states and their propensity to become failed states. As the world contemplates oil prices not bouncing back to their previous highs in the near future, such a relative academic void calls for more timely research into the political impact of the fall in oil price on petro-states.

In light of these facts, this paper will seek to tackle two main questions: what will the impact of the oil price crash be on the economic stability of petro-states when their lifeblood is so dependent on oil wealth? In addition to crippling the economy, will the price crash erode the social fabric of petro-states and finally engender political instability?

In what follows, this paper attempts to demonstrate one main theory: that the oil price crash does cause political instability in petro-states. The paper will argue that the oil price crash will first cause a petro-state's economy to spin out of control and result in economic calamity. It will

[1] Andrew Nikiforuk, "What Really Killed Soviet Union? Oil Shock?," *The Tyee*, March 13, 2013, accessed July 21, 2016, http://thetyee.ca/News/2013/03/13/Soviet-Union-Oil/.

then throw the state's political establishment into a tailspin and spark political turmoil. Our theory highlights the importance of two essential factors: fiscal reserves and economic diversification. It postulates that petro-states may only escape economic catastrophe and political turmoil if either one of these two pivotal factors is present: a) strong fiscal reserves and b) timely and successful economic diversification. This paper will argue that size does matter. If a petro-state has accumulated sufficient fiscal reserves and saved for a rainy day, it will have the means to withstand the oil price crash both economically and politically. A petro-state will also be able to weather the economic storm and enjoy political stability if it has diversified its economy in a timely and successful manner before the oil crash descends.

History is a useful guide to the future. One cannot construct a meaningful analysis without a critical review of the lessons learnt from yesterday. In order to achieve a more convincing result, one has to be reacquainted with the 1985 oil price slump and today's one, as the two crashes are stunningly similar. This paper will examine the impact of the 1985 oil price crash[2] on five major petro-states, namely the Soviet Union (aka the USSR), Venezuela, Algeria, Saudi Arabia and Indonesia. With the oil revenue being slashed by more than half, what was the economic aftermath on these petro-states and their respective political situations in those days? Through a case study of the Soviet Union, Venezuela and Algeria, we will present empirical evidence to affirm the validity of our theory: the 1985 oil price crash was a fundamental and immediate cause of the economic malaise of the petro-states at that time. It was the oil price slash that finally drove the countries to the state of political turmoil as a result of economic calamity.

Nonetheless, there are exceptions. Saudi Arabia and Indonesia could weather the oil price storm and steer away from troubled waters despite the sharp fall in oil revenue in 1985. Their relative immunity to political turbulence has reaffirmed the principle arguments of our theory: the existence of strong fiscal reserves and successful economic diversification can prevent petro-states from suffering the same fate of countries with much weaker fiscal reserves and an economic model of over-reliance on oil.

The turbulent past events of 1985 provide some useful lessons to tackle today's situation. From the insights gathered through the case study, this paper will assess whether the five petro-states chosen can reconcile the historic shocks of 1985 with the challenges of today, or whether they will repeat a history of political turmoil in the face of the 2014 oil price crash.[3]

[2] 1985 oil price crash stands for 1985-1986 oil price crash
[3] 2014 oil price crash denotes the oil crash erupted in June till April 2015

Main Body

As the then Venezuelan President Carlos Andre Pérez once posited: an oil price spike is bad for everyone but worst for developing countries that have oil. It is a trap.[4] Petro-states with abundant wealth generated from oil exports can enjoy certain level of economic prosperity and political stability. As scholars have put it, a petro-state's survival in some cases is depended on the steady export of oil and a heavy influx of petrodollars. The source of a lucrative income has allowed them to support domestic social safety nets, curry favour with their populace and sustain economic growth. Hooked on the oil revenue, petro-states in times of an oil boom era can enjoy windfall gain to legitimize their rule and strengthen their social solidarity.

Paradoxically, the scenario of plenty could destabilize oil-exporting countries. While oil prices began to fall from above a hundred in June 2014 to as low as US$27 per barrel in January 2016, [5] many petro-states descend into a dark age. With their lifeblood oil revenues under serious threat, they suffer adversely as they see their fiscal reserves depleting, GDP growth decelerating, debt rising and the overall economy waning. Despite the recent rebound to US$50 per barrel, [6] many academics hold a bearish outlook and conjecture that any return to triple-digit oil prices lies in the distant future.[7]

It is evident that petro-states are undergoing various degrees of economic pressure. Vulnerable countries like Venezuela are facing all manners of economic calamity and social disruption.[8] Though past performance is no guarantee of future results, it may shed light on what may lie ahead. To gain a better understanding of how petro-states will develop, we make reference to vents from the previous oil crash in order to analyze the situation of petro-states today and how to assess their likelihood to fall prey to instability. We will that the repercussions of oil revenues plunge will likely to be domestic political instability and the increasing fragility of the state.

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[4] Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2012), 114

[5] Patti Domm and Tom DiChristopher, "US oil falls on unexpectedly large inventory build", *CNBC,* January 20, 2016, accessed July 18, 2016, http://www.cnbc.com/2016/01/19/oil-prices-fall-further-on-glut-worries-us-crude-slumps-below-28.html.

[6] Barani Krishnan, "Oil hits 2016 high on U.S. draw forecasts, Nigeria woes," *Reuters*, June 7, 2016, accessed July 18, 2016, http://www.reuters.com/article/us-global-oil-idUSKCN0YS00Z.

[7] "The Geopolitics of oil: analyzing the effects of production and investment on global oil prices," *Harvard International Review*, September 2, 2015, accessed July 18, 2016, http://hir.harvard.edu/the-geopolitics-of-oil-analyzing-the-effects-of-production-and-investment-on-global-oil-prices/.

[8] "Venezuela: Edge of the Precipice", Crisis Group, accessed July 18, 2016, http://www.crisisgroup.org/~/media/Files/latin-america/venezuela/b035-venezuela-edge-of-the-precipice.pdf.

This paper will divide into four main sections. Firstly, it will define the questions – what is meant by “oil price crash” and what constitutes “political instability”. This section will also include a core section – the theory of the research. Secondly, it will elaborate the methodology and the reasons for selecting the 1985 oil price crash as the dominant period of study and the rationale for choosing the five petro-states for case study. Thirdly, it will include the most important section – the overall case study of the five petro-states. It will present empirical evidence to establish and justify our theory.

Arguments abound to illustrate how the Soviet Union, Venezuela and Algeria confirm our theory as they ended up in states of political instability after the 1985 price slash. We will use the cases of Saudi Arabia and Indonesia to further argue that the existence of the two factors is crucial to a state’s survival in times of oil price shock: fiscal reserves and economic diversification.

Lastly, it will move on to the application of the theory to today’s situation, to assess the political repercussions and come up with a prognosis in the wake of the new recent oil price crash.

First: Definitions and Theory

Before one approaches the question of whether the oil price crash will cause political stability of the petro-states, it is of necessary to clearly define what is meant by “oil price crash”. We choose to define it as a continuous and drastic dive in the global oil price on a scale of over 50% within a time span of one year. In history there were four significant oil price crashes which resulted in an extreme plunge in price in the range of 59%[9] to 72%[10] in a year. These crises encompass the ones starting in the year of 1985, 1997, 2008 and 2014.[11] The 1985 one was mostly associated with a significant shift in OPEC policy;[12] in 1997 and 2008 the drops were triggered by financial crises.[13] The latest episode in 2014 was the third largest price slide, initiated by an oil supply glut and an

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[9] “Oil Price Plunge Is So 1986…,” Morgan Stanley, April 2, 2015, accessed July 18, 2016, http://www.morganstanley.com/ideas/oil-price-plunge-is-so-1986.
[10] Benjamin Sinclair, “The Oil Price Plunge: Is This a Repeat of 1998 or 1986?,” The Motley Fool, February 6, 2015, accessed July 18, 2016, http://www.fool.ca/2015/02/06/the-oil-price-plunge-is-this-a-repeat-of-1998-or-1986/
[11] John Baffes, M. Ayhan Kose, Franziska Ohnsorge and Marc Stocker, “Policy Research Note - The Great Plunge in Oil Prices: Causes, Consequences, and Policy Responses,” *World Bank Group,* published in March 2015, accessed July 21, 2016, http://www.worldbank.org/content/dam/Worldbank/Research/PRN01_Mar2015_Oil_Prices.pdf.
[12] Ibid.
[13] Ibid.

eventual shift in OPEC policy.[14] In the latter part we will explain the rationale behind the selection of 1985 and 2014 price crashes.

To dissect the political consequences arising from the oil crash, it is essential to give a clear definition of "political instability". There are different interpretations of "political instability". It covers legal changes of heads of state and political changeovers as well as less dramatic events linked to social unrest such as demonstrations and political violence.[15] Some define it as the changes in political power through violence and regular changes in the due process of law.[16] Some scholars describe "political instability" as the propensity for a change in the executive, either by constitutional or unconstitutional means, in a country.[17] Political stability is also defined as the open exercise of violence such as in a civil war, rebellion or a coup d'état. Civil war is perceived to be a supreme form of political instability.[18] This paper will adopt the definition of the propensity for the change in the head of state and the appearance of civil war, rebellion or a coup d'état. To gauge the impact of the oil price crash, this paper will assess its impact over the course of seven years from the eruption of the oil price dip.

Oil price crashes engender the fall of oil empire

As mentioned earlier, this paper will testify one main theory – drastic falls in oil price cause political instability in petro-states. The research will be presented in two folds. First, an oil price crash will cause the petro-state's economy to tumble. The state will then experience all sorts of social disruption, coupled with various sorts of austerity policies, which will later throw the state into an irreversible course of political turmoil.

Our theory postulates that the existence of two essential factors can save an oil kingdom from falling apart: a) strong fiscal reserves and b) timely and successful economic diversification. With the presence of either of these factors, the petro-states can withstand a certain level of economic

[14] Ibid.

[15] Jean-Claude Berthélemy, Céline Kauffmann, Laurence Renard and Lucia Wegner, "Political instability, political regimes and economic performance in African countries (First draft, March 11, 2002)," accessed July 25, 2016, http://www.csae.ox.ac.uk/conferences/2002-upagissa/papers/kauffmann-csae2002.pdf.

[16] Said Jaouadi, Lamia Arfaoui and Azza Ziedi, "Political Instability and Growth: Case of the Developing Countries," *International Journal of Social Science Research* 2(1) (2014): 19-28.

[17] Alberto Alesina, Sule Ozler, Nouriel Roubini, and Phillip Swagel, "Political instability and economic growth," *Journal of Economic Growth* 1(2) (1996): 189-211.

[18] Anders Sundell, "Stability and Stagnation," in *Elites, Institutions and the Quality of Government*, ed. Carl Dahlström and Lena Wängnerud (Houndmills: Palgrave Macmillan, 2015)

reverberation and avert political tremor. The state either has funds to plug the hole in its revenue supply or an intensifying diversified economy to weather the crunch of oil price crash.

Undoubtedly, many other factors can contribute to economic malaise and political instability in a petro-state, such as democratization level, corruption issues, ethnic and religious tensions and geopolitical risks. This paper will focus purely on the study of oil price crashes and their relationship with instability in petro-states. Factors such as geopolitical concerns, regime types, internal rife due to ethnicity and religion as well as corruption problems will not be considered.

Second: Methodology

This project is primarily qualitative in nature, and supplemented with some quantitative data (e.g. oil prices, oil revenues and economic indicators of the countries selected). Research was conducted with a focus on oil-related economic crises and political instability within the five selected countries in seven years after the oil price clash in 1985. The study attempts to show that the oil price clash was correlated to the general economic crisis, as well as consequential political instability in petro-states. The methodology utilized in researching this capstone project involved the collection of open source information from academic journals, books and intelligence agencies; private and public oil sector reports and country reports; and historical and current media stories.

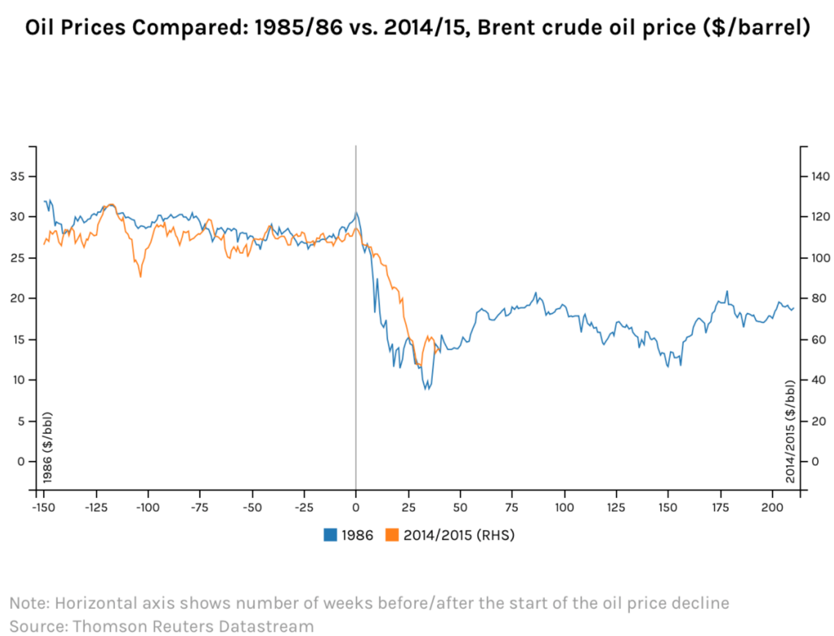
Period of study: 1985 oil price crash vs 2014 oil price crash

To gain a more representative assessment, this paper has chosen the period of oil price drop erupted in November 1985 as the case in point. This long period of oil price depression was worth a diagnosis as it bears a stunning similarity to the latest oil price crash which commenced in June 2014. The latest episode has two key parallels to that of 1985 in terms of the magnitude of price drop and the cause of the event.[19]

[19] "Oil Price Plunge Is So 1986…," Morgan Stanley, April 2, 2015, accessed July 18, 2016, http://www.morganstanley.com/ideas/oil-price-plunge-is-so-1986.
John Baffes, M. Ayhan Kose, Franziska Ohnsorge, and Marc Stocker, "Policy Research Note - The Great Plunge in Oil Prices: Causes, Consequences, and Policy Responses," *World Bank Group*, published in March 2015, accessed July 21, 2016, http://www.worldbank.org/content/dam/Worldbank/Research/PRN01_Mar2015_Oil_Prices.pdf.

First, both the price crashes experienced a dive of over 60% in just a few months. The oil price plummeted 69% between November 1985 and April 1986. Compare that with the latest oil dive by almost 60% from highs above US$120 per barrel in June 2014 to US$45 per barrel as of mid-March 2015, the similarly of magnitude is uncanny.[20] Both echo the definition of oil price crashes adopted in this paper: a drastic fall in prices on a scale of over 50% within a time span of one year. The shock of 2014 oil price crash is still with us today as the price is still hovering at the low level of $48 per barrel in June 2016.[21]

For ease of reading, we will describe the two oil price crashes of this study by naming them by the beginning year, instead of spelling out the full period of crashes. The case of 1985-1986 will be named "1985 oil price crash" while 2014-2015 crash will be entitled as "2014 oil price crash".



In another parallel with today, both episodes were triggered by the boom in oil supplies from non-OPEC countries and a sea change in the OPEC's policy in face of sluggish global demand.[22] Back

[20] "Oil Price Plunge Is So 1986…," Morgan Stanley, April 2, 2015, accessed July 18, 2016, http://www.morganstanley.com/ideas/oil-price-plunge-is-so-1986.
[21] "Short-term energy outlook", U.S. Energy Information Administration, July 12, 2016, accessed July 18, 2016, https://www.eia.gov/forecasts/steo/report/prices.cfm.
[22] John Baffes, M. Ayhan Kose, Franziska Ohnsorge, and Marc Stocker, "Policy Research Note - The Great Plunge in Oil Prices: Causes, Consequences, and Policy Responses," *World Bank Group*, published in March 2015,

then, OPEC tried to preserve its market share by reducing prices to a level it hoped would choke off higher-cost supplies from the rest of the world, in particular the emerging supplies of North Sea oil.[23] Today the recent oil boom from unconventional sources resembles the expansion of oil supplies from the North Sea. The oil glut was produced by the shale oil renaissance in the United States, and to a lesser degree, from Canadian oil sands. Saudi Arabia decided to stop propping up oil prices by ramping up production in order to quickly regain its market share in the world. It intended to cause a price crash that would hurt Saudi Arabia's rivals and shale oil industry, bring them into line and burn off high-cost competitors elsewhere.[24]

The selection of the case study

The five countries were selected for their adherence to the petro-state criteria, namely the amount of oil exports per year and the ratio of oil revenues to GDP. Since there is no general consensus on the definition of petro-states, this paper will adopt a hybrid definition drawn from different sources. Petro-states will be defined as having oil exports amounting to at least 10% of annual GDP in order to be classified as a petro-state in any given year.[25] It must be an oil exporting country with exports exceeding imports.

The entire world has a total of 33 petro-states.[26] The selection of five petro-states as a sample size should be adequate, especially the five countries of such diversity, spanning across five different regions, namely Saudi Arabia in the Middle East, the Soviet Union/Russia in Eurasia, Algeria in Africa, Venezuela in Latin America and Indonesia in Southeast Asia. They are varied in ethnicity, religious backgrounds and democratic systems which render us a more comprehensive and insightful analysis.

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accessed July 21, 2016, http://www.worldbank.org/content/dam/Worldbank/Research/PRN01_Mar2015_Oil_Prices.pdf.

[23] "Lessons from the 1986 Oil crash," Lombard Street Research, January 20, 2015, accessed July 21, 2016, http://www.lombardstreetresearch.com/lsrlink.php?T=MQ==&F=NjQ2.

[24] John Baffes, M. Ayhan Kose, Franziska Ohnsorge, and Marc Stocker, "Policy Ressearch Note - The Great Plunge in Oil Prices: Causes, Consequences, and Policy Responses," *World Bank Group,* published in March 2015, accessed July 21, 2016, http://www.worldbank.org/content/dam/Worldbank/Research/PRN01_Mar2015_Oil_Prices.pdf.

[25] Jeff Colgan, "When Does Oil Cause War? Petro-Aggression and Revolutionary Governments," New Security Beat (blog of the Wilson Center's Environmental Change and Security Programme), February 6, 2013, accessed July 18, 2016, https://www.newsecuritybeat.org/2013/02/oil-war-petro-aggression-revolutionary-governments/.

Jeff Colgan, "Oil and Revolutionary Regimes: A Toxic Mix," (presentation at the International Political Economy Society Annual Meeting, Philadelphia, Pennsylvania, November 2008).

[26] Jeff Colgan, "Oil and Revolutionary Regimes: A Toxic Mix," (presentation at the International Political Economy Society Annual Meeting, Philadelphia, Pennsylvania, November 2008).

Third: Case Study

In what follows, we will present the case study of five petro-states in the period of 1985 to 1992. Through the performance of the Soviet Union, Venezuela, Algeria, Saudi Arabia and Indonesia in crisis, we will attempt to justify the validity of our theory – an oil price crash does engender political turmoil.

The Soviet Union

The collapse of the Soviet Union could be told as a story of oil.[27] It affirms our theory by showing that the breakdown of the Soviet empire was a result of the plunging oil prices starting in November 1985. It was this sudden and unexpected price dip that first caused dramatic declines in the oil revenues of the Soviet Union and brought the economy to the verge of collapse. When the economy was on the brink of bankruptcy, social unrest, widespread riots, military mobilization and political crises ensued, which finally prompted the then President Gorbachev to resign and the empire to fall apart at the end of 1991.

In the following section, we will elaborate on the importance of oil revenues to the economy of the Soviet Union. We will go into great detail to demonstrate that the fall in oil price was a major factor causing the Soviet economy to crumble. The oil price crash shook the very foundation of the Soviet economy by causing their hard currency revenues to diminish. With the fast dwindling reserves, the country exhausted all feasible means and was unable to provide food supply, repay its burgeoning debts and balance the fiscal account in an era of hyperinflation and currency devaluation. As a result, the economic malaise finally sparked political tremors that finally torn the Soviet empire apart.

The case study echoes with our theory which postulates the indispensable roles of two main factors: 1) strong fiscal or hard currency reserves and 2) economic diversification. Without sufficient reserves, the Soviet Union could hardly survive the economic catastrophe. The inability of the Soviet government to diversify itself from oil dependence made the country even harder to turn around the tragic political downfall.

I. Oil revenues: the lifeblood of the Soviet Union

Oil wealth had been the lifeblood of the Soviet economy since 1977.[28] The quantity of Soviet's oi exports had drastically increased in the previous decade. In 1972, fuel exports, largely oil

[27] "The Soviet Collapse," American Enterprise Institute, published April 2007, accessed July 18, 2016, https://www.aei.org/feature/the-soviet-collapse/.
[28] "USSR Energy Atlas: CIA Historical Review Program (release in full 1999)," Central Intelligence Agency, published January 1985, accessed July 16, 2016, http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0000292326.pdf.

accounted for 16.6% of the Ruble value of Soviet exports to all socialist countries and 19.8% of the hard currency value of exports to the industrialized West and non-Communist developing countries. By 1979, the share of these oil exports had risen to 50% in total.[29] Oil had all along constituted a large proportion of exports from the Soviet Union. When the oil output peaked in 1987, the Soviet Union produced 624 million tons of oil, more than the United States or Saudi Arabia.[30]

By the same token, the Soviet Government's balance of payments in hard currency depended heavily on oil exports (crude oil and oil products). The oil revenues contributed greatly to sustaining the Soviet economy and funding social needs, such as imports of grain and other foodstuffs as well as consumer goods essential to society in order to maintain social stability.[31] Thanks to the enormous oil boom from 1971 to 1981 aided by growing production in oil fields such as Volga Oil Basin and Western Siberia, the Soviet Union had begun enjoying an explosion in oil revenue. From 1970 to 1977 alone, the increase in Soviet-held hard currency brought by windfall revenue allowed the Soviet Union to purchase US$14.2 billion more imports with hard currency than otherwise would have been possible. This windfall gain was equivalent to 21% of the cumulative value of the Soviet hard currency merchandise exports from 1971 to 1977.[32] Oil rents accruing to the Soviet Union increased from only several billion dollars per year in the early 1970s to well over US$260 billion dollars per year in 1981.[33] The oil price spike benefitted from the Iranian Revolution in the early 1980s[34] helped further support the faltering Soviet economy. Oil exports generated 60% of all its hard currency. The easy money offered the Soviet policymakers limited maneuverability in exploring other hard-currency earners substituting oil exports.[35]

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[29] U.S. Congress Office of Technology Assessment, *Technology and Soviet Energy Availability* (Washington D.C.: U.S. Government Printing Office, 1981), 254.
[30] Adnan Vatansever, "Russia's Oil Exports: Economic Rationale Versus Strategic Gains," Carnegie Endowment for International Peace, December 15, 2010, accessed July 15, 2016, http://carnegieendowment.org/2010/12/15/russia-s-oil-exports-economic-rationale-versus-strategic-gains.
[31] Gregory Grossman and Ronald L. Solberg, "The Soviet Union's Hard-Currency Balance of Payments and Creditworthiness in 1985," The Rand Corporation, published in April 1983, accessed July 17, 2016, http://www.rand.org/content/dam/rand/pubs/reports/2008/R2956.pdf.
[32] U.S. Congress Office of Technology Assessment, *Technology and Soviet Energy Availability* (Washington D.C.: U.S. Government Printing Office, 1981), 255.
[33] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 102.
[34] Anita Demkiv, "Political Instability in petrostates: the myth of reality of oil revenues as petrostate stabilizer" (PhD diss., The State University of New Jersey, 2012).
[35] Robert W. Campbell, "Review," The Energy Journal, 10(1) (January 1989): 189

The windfall gain of petro-money enabled the Soviet Union to depend even more on oil revenues to fund the state's expenditure without resorting to any significant economic reform that might alter the institutional framework.[36] It allowed the country to embark on a development trajectory by using easily accessible oil revenues to solve the increasingly complex social, economic and political problems confronting them. The hard currency also helped the country avert a growing food supply crisis, increase the imports of equipment and consumer goods, and provide a financial basis for the pursuit of the arms race with the United States whilst at the same time maintaining social stability.[37]

II. Oil price crash triggered the economic malaise

Shrinking fiscal reserves: hard currency deficit

As oil exports were nearly the single source for this largely isolated country's hard currency, when the oil prices began to plummet in November 1985, a dark age descended on the economy of the Soviet Union. Moscow juggled revenue and expenditure to maintain some semblance of balance in its hard currency position.[38] Oil revenues fell several-fold when the Soviet Union pocketed fewer dollars from oil exports. The price collapse immediately triggered a country-wide hard currency crisis which evolved into a growing economic malaise engulfing the whole country.

According to the scholar Martin McCuley, each dollar fall per barrel led to the loss of approximately US$300 million of hard-currency reserves in the Soviet Union.[39] The drop in price caused US$20 billion of oil revenue to be dissipated immediately every year.[40] As per an assessment by the Central Intelligence Agency (CIA), oil earnings plummeted swiftly from US$15.2 billion between 1982 and 1984 to US$7 billion by 1986.[41] In the early 1980s, Moscow

[36] Richard Connolly, *The Economic Sources of Social Order Development in Post-Socialist Eastern Europe* (Abingdon: Routledge, 2013), 100.
[37] Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2011), 23.
[38] "USSR: Coping With the Decline in Hard Currency Revenues," Central Intelligence Unit (CIA historical program, released as sanitized 1999), published in April 1989, accessed July 19, 2016, https://www.cia.gov/library/readingroom/docs/DOC_0000498823.pdf.
[39] Martin McCauley, *The Rise and Fall of the Soviet Union* (New York: Routledge, 2013), 152.
[40] "The Soviet Collapse," American Enterprise Institute, published April 2007, accessed July 18, 2016, https://www.aei.org/feature/the-soviet-collapse/.
[41] "USSR: Coping With the Decline in Hard Currency Revenues," Central Intelligence Unit (CIA historical program, released as sanitized 1999), published in April 1989, accessed July 19, 2016, https://www.cia.gov/library/readingroom/docs/DOC_0000498823.pdf.

was still running a hard-currency trade surplus of more than US$4 billion a year. Nonetheless, as a result of the oil price dip, the surplus shrank to US$534 million in 1985 despite a 6% decline in imports.[42]

In view of the sudden loss of oil income, the Soviet government made a bold attempt to increase oil investment by pumping an increase of 47% in capital spending between 1985 and 1989 into the oil fields in order to increase oil production and offset some of the loss in revenue.[43]

Nevertheless, from 1980 onwards, as exploration and production costs increased during the period of low oil price, the rate of increase in investment outstripped the rents derived from oil production.[44] Soviet oil as a result was produced at a significant economic loss in 1987, when the government had to subsidize both domestic consumption and oil export.[45] Even though the country was pumping more oil, it was not enough to bail out its sinking economy.[46]

The oil price slash constituted a major blow to the Soviet hard-currency position with a heavy drain on their currency funds currency funds that the Soviet Union desperately needed to pay for imports. [47]

To offset the shortfall in hard-currency, Yegor Gaidar and certain other scholars have stated that the Soviet leadership faced a hard choice: whether to reduce the social spending in support of social stability and state security or let the economy further decline. Presented with them were five

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[42] Clyde H. Farnsworth, "Soviet Borrows Heavily as Oil and Dollar Fall," *The New York Times*, December 3, 1987, accessed July 19, 2016, http://www.nytimes.com/1987/12/03/world/soviet-borrows-heavily-as-oil-and-dollar-fall.html.

[43] Thane Gustafson, *Wheel of Fortune: The Battle for Oil and Power in Russia* (London: The Belknap Press of Harvard University Press, 2012), 48.

[44] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 133.

[45] John D. Grace, *Russia oil supply: Performance and Prospects* (Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2005), 69.

[46] Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2011), 427.

[47] Gregory Grossman and Ronald L. Solberg, "The Soviet Union's Hard-Currency Balance of Payments and Creditworthiness in 1985," The Rand Corporation, published April 1983, accessed July 17, 2016, http://www.rand.org/content/dam/rand/pubs/reports/2008/R2956.pdf.

options: a) cutting food imports; b) increasing arms sales; c) reducing military complex; d) dipping into gold stocks; or e) borrowing more.[48]

Nonetheless, echoing the discourse of "the revised Midas touch"[49] – the government was reluctant to cut back on spending when revenues fell and was caught in a quandary to maintain social stability.[50] Hence, none of the options seemed workable in rescuing the ailing economy.

a. Cut food imports

Top in the country's pressing social needs was food imports.[51] Due to its endemic agricultural crisis, the Soviet Union had been importing grains from the West since 1963 to feed its population and by the mid-1980s it was the world's largest importer.[52] Soviet purchases of grain jumped from 2.2 million tons in 1970 to 46 million in 1984.[53] By the mid-1980s, every third ton of baked goods was made from grain imports. Cattle rearing also relied on imported grain. As grain imports had to be paid for by convertible currency, dwindling hard currency reserves presented the Soviet leadership with the threat of insufficient grain imports.[54] The Soviet Union could have drastically reduced Soviet food imports by US$20 billion. According to Gaidar, this was exactly the amount the Soviet Union lost when oil prices crashed in 1985.[55] However, this option was infeasible as the amount cut would have meant the re-introduction of food rationing with a magnitude resembling the World War II[56] and in return would have triggered great social unrest. It would be an act of political suicide.

[48] "The Soviet Collapse," American Enterprise Institute, published April 2007, accessed July 18, 2016, https://www.aei.org/feature/the-soviet-collapse/.
[49] "The Revised Midas touch" meant the highly incurable fiscal rigidity brought by the oil revenues in petro-states. When price soars, the government is under pressure to increase social spending. When price falls and revenues decline, the government dare not cut back on spending for fear of social instability. Hence, they rely on printing money or international borrowing to back up the increasing social spending
Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2011), 111.
[50] Ibid.
[51] Ibid, 23.
[52] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 95.
[53] Ibid.
[54] Ibid, 149.
[55] Leonid Bershidsky, "Russia Won't Suffer the Soviet Union's Fate," Bloomberg, August 25, 2015, accessed July 19, 2016, https://www.bloomberg.com/view/articles/2015-08-25/russia-won-t-suffer-the-soviet-union-s-fate
[56] "The Soviet Collapse," American Enterprise Institute, published in April 2007, accessed July 18, 2016, https://www.aei.org/feature/the-soviet-collapse/.

b. Increase arms sales

The Soviet Government could have increased arms sales to compensate for the loss in export revenues. Prima facie the value of arms sales jumped.[57] However, many deals were financed by credit extensions to less developed countries. Thus the Soviet's hard currency appeared only on paper.[58] The increased financial difficulties of several Arab countries due to declining oil revenue meant increased Soviet difficulties in maintaining a high level of real hard-currency arms sales in the region.[59]

c. Reduce military-industrial complex

The Soviet Union could have implemented radical cuts in military-industrial complex and streamlined its manpower.[60] As a large number of national employment depended on the armed forces, by employing this option the Soviet leadership would have risked serious conflicts with the armed forces.[61] Social unrest would have been the inevitable result.

d. Dip into gold reserves

The Soviet Union had vast gold reserves to guarantee grain imports and bolster the economy. However, after oil earnings began declining in late 1985, the Soviet Union compensated for the fall in revenue by jetting up the sales of gold to more than 300 tons in 1986 to exchange for hard currency.[62] Gold reserves were quickly reduced to approximately US$7.6 billion in 1988 and might have been depleted completely. In this case, they could not be a way out in the long run.[63]

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[57] "USSR: Coping With the Decline in Hard Currency Revenues," Central Intelligence Unit (CIA historical program, released as sanitized 1999), published in April 1989, accessed July 19, 2016, https://www.cia.gov/library/readingroom/docs/DOC_0000498823.pdf.
[58] Ibid.
[59] Jan Vanous, "The impact of the oil price decline on the Soviet Union and Eastern Europe," *The Energy Journal* 4(3) (1983), 11-19.
[60] "The Soviet Collapse," American Enterprise Institute, published in April 2007, accessed July 18, 2016, https://www.aei.org/feature/the-soviet-collapse/.
[61] Ibid.
[62] Clyde H. Farnsworth, "Soviet Borrows Heavily as Oil and Dollar Fall," *The New York Times*, December 3, 1987, accessed July 19, 2016, http://www.nytimes.com/1987/12/03/world/soviet-borrows-heavily-as-oil-and-dollar-fall.html.
[63] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 130.

e. Borrow more

As the Soviet Government could not alleviate "the reversed Midas touch" by reducing social spending, the easiest way forward was to borrow more to keep money flowing[64]. Meanwhile, the Soviet leadership chose to disregard the growing economic problem in the hope that the oil price would somehow rebound and that the problem would simply go away. But as the debt kept ballooning, it inevitably resulted in a debt crisis.

Soaring debt crisis

The Soviet leadership chose to count on foreign debt to cover shortfalls in hard currency caused by declining world oil prices.[65] This saw a drastic surge in state debts from US$42 billion Rubles in 1986 to US$312.4 billion Rubles at the start of 1989 and then to US$400 billion Rubles or 44% of GDP in the late 1989. The state continued to live beyond its means with state debt soaring. The currency owed on foreign debt for 1991 was US$20.7 billion.[66]

The Soviet Union was so desperate to create a consortium of 300 banks to provide a US$100 billion loan for the Soviet Union to prop up the oil-dependent economy in 1989. Despite the pressing need, the loan raised was 20 times smaller than needed. Only five banks participated.[67] The total Soviet hard-currency debt increased appreciably, and the Soviet Union, which had an impeccable debt repayment record in earlier decades, had accumulated sizable arrears by 1990.[68]

The economy fell apart with no immediate provision of sufficient loans from the West. This resulted in looming catastrophe of food and basic necessity shortages. With the fiscal deficit growing without enough hard currency to support the expenditure, the bank started to lose control of currency circulation with the consequence that some republics like Lithuania, Latvia and Estonia started printing their own money. The then Finance Ministry predicted there would be

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[64] Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2011), 113.
[65] Clyde H. Farnsworth, "Soviet Borrows Heavily as Oil and Dollar Fall," *The New York Times*, December 3, 1987, accessed July 19, 2016, http://www.nytimes.com/1987/12/03/world/soviet-borrows-heavily-as-oil-and-dollar-fall.html.
[66] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 195.
[67] "The Soviet Collapse," American Enterprise Institute, published April 2007, accessed July 18, 2016, https://www.aei.org/feature/the-soviet-collapse/.
[68] "Perestroika Fails - Unforeseen Results of Reform," Global Security.org, accessed July 25, 2016, http://www.globalsecurity.org/military/world/russia/gorbachev-perestroika-fails.htm.

nothing left to pay the army and the navy and to support administrative structure. Pensions were also under threat.[69] The Soviet Government was on the brink of declaring bankruptcy with insufficient hard-currency to sustain necessary expenditure. In 1991 the Soviet GDP had declined 17% and was declining at an accelerating rate.[70]

Famine on the horizon

With dwindling fiscal reserves and insufficient loans, the Soviet Union experienced chronic delay in payments for imported goods including food imports. With no creditworthiness, the Soviet Union found it harder to import food to feed the mouths of its huge population. The country risked extreme shortage of both bread supplies for its human population and concentrated feed for animal husbandry.

The shortage began to take their toll on daily life when the Council of Ministers decided in 1990 to raise retail price of bread and rolls by 300%, of grain by 290% in 1990, of meat by 90%, of sausages by 310% and the price of other baked goods by 300%. Food rationing was introduced and skyrocketing prices were the result. According to the then Head of Department of Agro-industrial sector, reserves of food grain in the Soviet Union would be exhausted by the end of March 1991.[71] The available stock of flour throughout the Soviet Union was 1.5 million tons, which would satisfy demand for only fifteen days.[72] The unstable supply of grain made delivery a problem thus causing further destabilization in society. The Council of Ministers of the Soviet Union, Stephan Sitarian wrote in April 1990: "*Today a number of foreign firms stopped shipping goods to the Soviet Union, and ships loaded with grains have been lying idle in ports*".[73] By the middle of summer 1991, the food deficit was almost ubiquitous. The Soviets eventually endured their inflation shock in October 1989 when their currency was devalued by 90%[74.] The

[69] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 214.
[70] Hans Aage, Privatization and Democratization in Eastern Europe and the Former Soviet Union, in *International Privatization: Strategies and Practices*, ed. Thomas Clarke (Berlin: Walter de Gruyter, 1994), 168.
[71] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 206.
[72] Ibid, 210.
[73] Ibid, 180.
[74] "Peak Oil and The Fall of The Soviet Union: Lessons on the 20th Anniversary of The Collapse," *Business Insider*, May 29, 2011, accessed July 21, 2016, http://www.businessinsider.com/peak-oil-and-the-fall-of-the-soviet-union-lessons-on-the-20th-anniversary-of-the-collapse-2011-5.

Soviet Union not only fervently demanded, it also openly appealed to the West for philanthropic aid.[75]

III. Political instability an inevitable result

Without an abundant source of income to maintain a balanced budget, the doom of the regime was inevitable when the long awaited political shake-up finally arrived. The Soviet Union first experienced the disintegration of the Eastern European bloc and mounting riots and protests across its own country. The complete fall of the Soviet communist regime was in sight.

Mounting social unrest

As a result of the price increase and shortage of food, wearing apparel and other basic necessities, sociopolitical unrest grew more acute. The general quality of life for Soviet consumers deteriorated. The mounting economic difficulties, shortages in the food markets undermined the legitimacy of the regime and mass protests against the communist regime ensued. The severe food shortage prompted citizens to demonstrate against the government. For instance, the miners' strike in the summer of 1989 was caused by the lack of food in the mining regions.[76] Confidence in the government was melting away fast with the looming famine.

Fueled by the liberalized atmosphere of President Mikhail Gorbachev's glasnost (literally, public voicing) and by the increase in information access in the late 1980s, public disenchantment was overt. Mark Beisinger has compiled a list of mobilization episodes in the Soviet Union up to the day of its collapse. 6,663 protest demonstrations and 2,177 incidents of mass violence took place from January 1986 to December 1992. The country experienced an accelerating pace of street protests and a rising tide of popular unrest in the late Gorbachev era, thus shaking the foundation of the Soviet empire.[77]

Disintegration of Eastern Europe bloc

[75] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 197.
[76] Ibid, 168.
[77] Charles King, *Extreme Politics: Nationalism, Violence, and the end of Eastern Europe* (New York: Oxford University Press, 2010), 62.

The Soviet Government had been using hard currency subsidies and oil exports as a political instrument to stabilize satellite regimes or the so-called Comecon countries of Easter Europe since the 1950s. Nevertheless, prompted by serious hard currency problems, the Soviet Union chose to reduce the annual delivery of oil to Easter Europe and preferred to export oil to importers who paid in hard currency. To save oil for its own needs, it even started to charge Eastern Europe hard currency and at global prices for its oil from 1988.[78] Without free oil, the Eastern Europe economies went into a virtual tailspin.[79] The socialist camp thereby accumulated more foreign debt owed to the West to US$154.1 billion, which would later result in the disintegration of the entire bloc.[80] This was one of the direct causes of the collapse of the Eastern Europe economies. And, revolutions in Easter Europe also erupted in the same year. Starting from Lithuania and Latvia, one by one the countries in the bloc declared independence and the Soviet Government had no power or authority to stop them.[81]

Fall of the Soviet Empire

New leadership led by President Gorbachev was perceived to be too weak to rescue the country's economy from disaster and to restore law and order. The straw that broke the camel's back was the failed coup launched in an attempt to overthrow Gorbachev's government in August 1991.[82] The mounting social unrest and the disintegration of the Soviet Union that followed made Gorbachev unable to preserve the Union either by force or by soft power. The Soviet empire was then dissolved and Gorbachev was forced to step down from its helm.

IV. Failure to accumulate a strong fiscal reserve and pursue economy diversification

[78] Luis de Sousa, May 27, 2011 (10:45 a.m.), comment on Douglas B. Reynolds, "Peak oil and the Fall of the Soviet Union: Lessons on the 20th Anniversary of the Collapse," *The Oil Drum:* July 21, 2016, http://www.theoildrum.com/node/7878.

[79] Andrew Nikiforuk, "What Really Killed Soviet Union? Oil Shock?," The Tyee, March 13, 2013, accessed July 20 2016, http://thetyee.ca/News/2013/03/13/Soviet-Union-Oil/.

[80] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 127-128.

[81] Luis de Sousa, May 27, 2011 (10:45 a.m.), comment on Douglas B. Reynolds, "Peak oil and the Fall of the Soviet Union: Lessons on the 20th Anniversary of the Collapse," *The Oil Drum:* July 21, 2016, http://www.theoildrum.com/node/7878.

[82] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 222.

The Soviet Government could have reserved the course of events if it has been able to grasp the golden opportunity to build up stronger fiscal reserves in hard currency and reform the economy before it was too late.

Fiscal reserves

When the oil revenue was growing by leaps and bounds, the Soviet leadership failed to seize the day to build up hard currency reserves or expand its economic base. It did not see the importance of investing its export income in liquid financial instruments to be used in the event of an oil market downturn. It lacked the forward-thinking insight to establish stabilization policies with revenues set aside to counteract the decline in oil revenue.[83] The Soviet leadership simply counted on high oil prices to support growth without clear anticipation of what would happen if prices slid back.[84]

Economic reform

Commodity-rich countries have a tendency to enjoy an economic boom when oil wealth is on the upside. However, the high dependence on oil exports in its GDP also meant that there would be little left to sustain its economy when oil revenue diminished. When the decline of oil prices caused hard currency revenue to dwindle, the obvious way of turning around the problem would have been to change economic structures in order to maintain strong fiscal reserves. This could have been achieved by reducing reliance on oil exports, expanding the economy's base and increasing its self-sustainability in agricultural production by reforming the agricultural system. However, the Soviet Government's biggest blunder was its failure to reform and diversify the economy before and after the oil price crash in a timely and efficient manner.

Before the regime collapse, the then President Gorbachev had introduced economic reforms of perestroika ("restructuring"). Perestroika called for de-monopolization with a certain amount of semi-private businesses, plus the ending of price controls maintained by the government for the

[83] "The Paradox of plenty," *The Economist*, December 20, 2005, accessed July 21, 2016, http://www.economist.com/node/5323394.
[84] "The Soviet Collapse," American Enterprise Institute, published April 2007, accessed July 18, 2016, https://www.aei.org/feature/the-soviet-collapse/.

past seven decades[85]. Unfortunately, such an economy would take time to evolve, and people had no patience to wait any longer, which led to long-lines, strikes, and civil unrest.

Attempts to diversify the economy by boosting the manufactured industry products were thwarted by insufficient external demand, Soviet non-price competitiveness and unsuccessful reforms in industrialization.[86] The absence of a market mechanism made industrial production inefficient, with each final product costing 1.6 to 7.6 times greater than similar products made in the United States in the 1980s.[87] The substandard quality of Soviet goods also meant that Soviet industry was unable to sell any manufactured products overseas. [88]

In the midst of the fiscal reserves crisis, the Soviet Union hit a much larger stumbling block on the pathway to economic reform. It was left with no choice but to postpone numerous industrial reform projects slated for the five-year planning period from 1986 to 1990, which had been proposed by Gorbachev in the hope of freeing the Soviet country from the oil-curse entrapment.[89] Unsuccessful economic diversification further undermined the ability of the Soviet Union to withstand the oil shock.

[85] "Glasnost and Perestroika," The Cold War Museum, accessed July 22, 2016, http://www.coldwar.org/articles/80s/glasnostandperestroika.asp.

[86] Gregory Grossman and Ronald L. Solberg, "The Soviet Union's Hard-Currency Balance of Payments and Creditworthiness in 1985," The Rand Corporation, published April 1983, accessed July 17, 2016, http://www.rand.org/content/dam/rand/pubs/reports/2008/R2956.pdf.

[87] Yegor Gaidar, *Collapse of an Empire – Lesson for Modern Russia* (Washington D.C.: The Brookings Institution Press, 2007), 75.

[88] Ibid, 122.

[89] "USSR: Coping With the Decline in Hard Currency Revenues," Central Intelligence Unit (CIA historical program, released as sanitized 1999), published April 1989, accessed July 19, 2016, https://www.cia.gov/library/readingroom/docs/DOC_0000498823.pdf.

Venezuela

Since oil exploration began there in the early 20th century, Venezuela's economy has been heavily dependent on the petroleum industry. With the enormous proceeds from oil sales, Venezuela emerged as the richest country in Latin America and one of the top twenty richest countries in the world by 1970.[90] Oil revenue trickled down to the country's citizens who were happy to enjoy the economic fruits. With a lucrative oil income to fund the Government, Venezuela spent generously on social entitlements and welfare to smooth the democratic political system and ensure political stability.[91] The country became more politically stable than its neighboring countries which were often plagued by leftist guerilla or rightist military authoritarianism from the 1960s to the 1980s.[92] Nevertheless, the fortune of Venezuela was reversed when the oil price crashed in 1985. The following section attempts to show that the 1985 oil price slump destabilized the domestic economy and undermined social stability, causing economic recession, hyperinflation, drastic currency depreciation and an extreme increase in external debt as well as the unemployment rate. As the economy became increasingly unstable, the political environment turned turbulent as a result.

In what follows we will demonstrate the importance of two factors: 1) insufficient fiscal reserves and 2) failure in economic reforms. The former brought about foreign debt default together with welfare and subsidy cuts which threatened the basic living standard of Venezuelans. The latter aggravated its ailing economy with an over-reliance on oil revenue without seeking diversification in and expansion of its economic structure.

I. Oil revenue: the lifeblood of Venezuela

Thanks to the natural asset of oil, oil exports accounted for 80% to 90% of the total exports of Venezuela from the 1970s to the 1980s.[93] Venezuela's balance of trade predominately relied on

[90] Ricardo Hausmann and Francisco Rodriguez, "Chapter 1: Introduction," in *Venezuela before Chavez: Anatomy of an Economic Collapse*, edited by Ricardo Hausmann and Francisco Rodriguez, (Pennsylvania: Pennsylvania State University Press, 2015), 1-14

[91] Angel Alvarez, "Countries at the Crossroads 2011, Venezuela," Freedom House, accessed June 13, 2016 from https://freedomhouse.org/sites/default/files/inline_images/VENEZUELA.pdf.

[92] Ibid

[93] Osmel Manzano, "Chapter 2: Venezuela after a century of oil exploration," in *Venezuela before Chavez: Anatomy of an Economic Collapse*, edited by Ricardo Hausmann and Francisco Rodriguez, (Pennsylvania: Pennsylvania State University Press, 2015), 51-90.

oil and petroleum exports which became the major source of foreign currency. Oil industry contributed 20% to 25% of the total GDP of Venezuela. Its revenue propped up nearly all the Venezuelan economy[94] and generated more than 70% of government revenue in the 1980s. The Venezuelan Government could not properly function without its crucial oil income.

Though the country's economy was heavily oil-dependent, the Venezuelan Government was able to put oil rents to good use from the 1950s to the 1970s.[95] The Government was willing to invest in public infrastructure such as highways, seaports, electricity plants. Utility industries saw an average growth rate of 18.1% in the 1950s.[96] Oil rent enabled the country to urbanize society with its rural population dropping from 80% in 1926 to 36% in 1970.[97] Whenever oil prices soared from 1957 to 1973, the Venezuelan government would increase spending on welfare and social benefits. For instance, the average enrollment in primary, secondary and tertiary schools increased 6.4%, 14.2% and 18.2% respectively in the same period of time.[98]

II. Economic consequence of the oil price crash

The oil price decline of 1985 caught Venezuela by surprise. According to the then Planning Minister, Venezuela's oil exports per capita dropped from US$1,700 in 1981 to US$500 in 1989, a slide of over 75%.[99] Its total oil exports dived from a peak of US$45.3 billion in 1980 to a mere US$10 billion in 1986. The nation's revenue fall took a heavy toll on the economy. Venezuela's GDP per capita experienced a negative growth in the 1980s, reaching -10.8% in 1989. The country fell from a sharp peak into a deep trough, becoming the most under-performing country in Latin America.[100]

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94 Ibid.
95 Betty Agnani and Amaia Iza, "Growth in an oil abundant economy: the case of Venezuela," (paper presented at the DEGIT-X Conference, Mexico, 2005).
96 Omar D Bello, Juan S Blyde and Diego Restuccia, "Venezuela's Growth Experience," *Latin American Journal of Economics*, 48(2) (2011): 199-266.
97 Ibid.
98 Jonathan Di John, "Economic Liberalization, Political Instability and State Capacity in Venezuela," *International Political Science Review*, 26(1) (2005): 109.
99 George Philip, "When Prices Were Low: Petroleos de Venezuela and Economic Policy Making in Venezuela since 1989," *Bulletin of Latin America Research*, 18(3) (1999): 364.
100 Franciso Monaldi, Rosa Amelia Gonzalez, Richard Obuchi, Michael Penfold, "Political Institutions, Policymaking Process and Policy Outcomes in Venezuela," Latin American Research Network, accessed June 13, 2016, http://www.iadb.org/res/laresnetwork/files/pr231finaldraft.pdf.

The first dire consequence brought by the price crash was the drastic devaluation of the Venezuelan currency. Between 1983 and 1989, Venezuelan currency depreciated as much as two-third against U.S. dollar.[101] Venezuelans suffered as their currency lost the purchasing power to pay for imports. The ills of Venezuela became so evident after the oil price plummeted at the end of 1985. Despite the government's efforts to stabilize the economy by running a deficit budget of 7.6% for three consecutive years[102] and tightening protectionist policies,[103] the Venezuelan economy was in deep crisis by the end of 1980s.[104] Unemployment shot up to 10% in 1989[105] and per capita incomes dropped to where they had been in 1973.[106] The economy was in terrible shape with much of the population living below the poverty line.[107]

In 1989, Venezuelan current account deficit (net capital loss to international market) reached 9.9% of GDP and net fiscal reserves (fiscal reserves minus foreign debt) were at minus US$6.2 billion.[108] More importantly, domestic debt to GDP ratio emerged to a high level of around 90% and the government spent over half of its expenditure on debt repayments.[109] In view of these statistics, Venezuela was on the verge of bankruptcy as it had great difficulty honouring its debt with domestic and international creditors.

To make matter worse, Venezuela's public sectors increased borrowing from the international loan markets even during good years. Between 1973 and 1981, the public sectors' foreign debt grew

[101] Osmel Manzano, "Chapter 2: Venezuela after a century of oil exploration*,"* in *Venezuela before Chavez: Anatomy of an Economic Collapse,* edited by Ricardo Hausmann and Francisco Rodriguez, (Pennsylvania: Pennsylvania State University Press, 2015), 51-90.

[102] Francisco Monaldi, Rosa Amelia Gonzalez, Richard Obuchi, Michael Penfold, "Political Institutions, Policymaking Process and Policy Outcomes in Venezuela," Latin American Research Network, accessed June 13, 2016, http://www.iadb.org/res/laresnetwork/files/pr231finaldraft.pdf.

[103] Protectionist policies included increased import tariff and enhanced capital control. It aims at discourage import and encourage consumption of local goods to help local economy.
Jonathan Di John, "Economic Liberalization, Political Instability and State Capacity in Venezuela," *International Political Science Review*, 26(1) (2005): 109.

[104] Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2011), 114.

[105] Samuel Frejie, "Income Distribution and Redistribution in Venezuela," in *Venezuela before Chavez: Anatomy of an Economic Collapse*, edited by Ricardo Hausmann and Francisco Rodriguez, (Pennsylvania: Pennsylvania State University Press, 2015), 207-238.

[106] Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2011), 114.

[107] Ibid.

[108] Jonathan Di John, "Economic Liberalization, Political Instability and State Capacity in Venezuela," *International Political Science Review*, 26(1) (2005): 109.

[109] Diego Restuccia, "The Monetary and Fiscal History of Venezuela, 1960-2005," published in August 2010, accessed 22 July, 2016, https://www.economics.utoronto.ca/diegor/research/MFHLA_paper.pdf.

from 7.7% to 14.4% of total GDP.[110] The domestic debt to GDP ratio steadily increased from 40% in 1979 to 64% in 1984.[111] Therefore, Venezuela's debt crisis was further exacerbated by the serious external debt accumulated from the good years.

In view of the rising debt problem, a banking crisis erupted between 1988 and 1989. Driven by fear of a bank run, depositors flocked to banks to draw money, forcing bank deposits to keep falling in mid-1987.[112] At the end of 1988 and 1989, the drop in bank deposits by 40% started to bite into bank capital, forcing the banks to recall loans to fulfill the deposit withdrawal obligation and to avoid a bank run.[113] As a result, bank loans to the private sectors in Venezuela dropped by almost 50% in the period, seriously hampering the private sector's ability to refinance.[114] The collapse of private credit did not recover until the late 1990s.[115]

To prevent hyperinflation and the ensuing social disruption, the Government decided to install a complex price control mechanism with prices of daily necessity set at a rigid standard. Almost everything was priced by the Government, ranging from ice and coffee to funerals.[116]Meanwhile, shopkeepers felt little trust in the Government and feared further currency devaluation and the possibility of soaring inflation. They chose to stockpile merchandising and daily products, causing serious shortages of daily necessities.[117] Despite efforts to control pricing, the inflation rate was at a high point of 30%.[118]

The Manufacturing sector, which had been supported by state investment, also suffered a big hit. After oil price crash and a sharp decline in government oil revenue, the Venezuelan government

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[110] Omar D Bello, Juan S Blyde and Diego Restuccia, "Working Paper 431: Venezuela's Growth Experience," Department of Economics, University of Toronto, published June 3, 2011, accessed June 13, 2016, https://www.economics.utoronto.ca/public/workingPapers/tecipa-431.pdf.
[111] Maria Antonia Moreno and Cameron A. Shelton, "Chapter 9: Sleeping in the Bed One Makes, The Venezuelan Fiscal Policy Response to the Oil Boom," in *Venezuela before Chavez: Anatomy of an Economic Collapse,* edited by Ricardo Hausmann and Francisco Rodriguez, (Pennsylvania: Pennsylvania State University Press, 2015), 259-284.
[112] Matias Braun, "Understanding Economic Growth in Venezuela: 1970-2005 - The Financial Sector," published in April 2006, accessed June 14, 2016, http://www.cid.harvard.edu/events/papers/0604caf/Braun.pdf.
[113] Ibid.
[114] Ibid.
[115] Ibid.
[116] Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2011), 114
[117] Francisco Monaldi, Rosa Amelia Gonzalez, Richard Obuchi, Michael Penfold, "Political Institutions, Policymaking Process and Policy Outcomes in Venezuela," Latin American Research Network, accessed June 13, 2016, http://www.iadb.org/res/laresnetwork/files/pr231finaldraft.pdf.
[118] Diego Restuccia, "The Monetary and Fiscal History of Venezuela, 1960-2005," published in August, 2010, accessed 22 July, 2016, https://www.economics.utoronto.ca/diegor/research/MFHLA_paper.pdf.

sharply cut public investment in manufacturing industries. As a direct result, real investment in manufacturing in Venezuela diminished by half between 1982 and 1986, from around 200 billion Venezuelan Bolivar to 100 billion in Bolivar.[119] Many state-owned-enterprises were shut down due to inadequate financial support from the Government. The collapse of the manufacturing sectors contributed to bad debts, rising unemployment and the shortage of daily necessities. \

III. Political instability: an inevitable result

The economic crisis triggered by the oil price crash eroded public support for the elitist democratic system in Venezuela as it failed to deliver the desired economic results. Under dire economic circumstances, many citizens grew to resent the system and blamed the corruption of the elite class, believing that the state system had been captured by politicians and their sponsors who did not represent the interests of the people.[120] Venezuela became increasingly political unstable.

<u>Riots erupted in 1989</u>

All along Venezuela's elite politicians and the ruling party maintained political stability across the country by dint of a client system.[121] In the good old days of high oil prices, politicians would distribute oil rents with their support base to secure and solidify the loyalty of their supporters. In practice, since oil wealth was mainly distributed through state-owned enterprises. The client group would benefit by being on the board of directors of the enterprises. Statistics showed that the composition of the board of directors covered different client sectors from 1960s to 1980s.[122]

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[119] Johnathan Di John, "The Political Economy of Industrial Policy in Venezuela," in *Venezuela before Chavez: Anatomy of an Economic Collapse,* edited by Ricardo Hausmann and Francisco Rodriguez, (Pennsylvania: Pennsylvania State University Press, 2015), 418-474.

[120] Franciso Monaldi, Rosa Amelia Gonzalez, Richard Obuchi, Michael Penfold, "Political Institutions, Policymaking Process and Policy Outcomes in Venezuela," Latin American Research Network, accessed June 13, 2016, http://www.iadb.org/res/laresnetwork/files/pr231finaldraft.pdf

[121] Client system referred to a situation where clients give political support to patrons in exchange for special benefits.

[122] Around 48% to 62% officials, 20% to 30% economic interest groups, 10% bank, 10% to 15% labour, 5% professionals and 10% others.
Franciso Monaldi, Rosa Amelia Gonzalez, Richard Obuchi, Michael Penfold, "Political Institutions, Policymaking Process and Policy Outcomes in Venezuela," Latin American Research Network, accessed June 13, 2016, http://www.iadb.org/res/laresnetwork/files/pr231finaldraft.pdf.

The growth of oil revenue fuelled economic growth and supported state-owned manufacturers, who in return contributed better welfare and numerous job opportunities to the client sectors.[123] With sufficient oil revenues, the Government and elite politicians found it relatively easy to gain support for the two major political parties dominating the political system of the country.

When the oil price crashed, the client system could not be sustained. Politicians no longer had enough oil money to solidify public support. They were compelled to cut government expenditure and close down unprofitable state-owned factories, which later agitated the masses of the unemployed. The political system was thrown into a tailspin.

In 1989, a presidential election took place amidst the deep economic crisis. In order to pacify the public and reverse economy decline, the victorious Presidential candidate Carlos Andre Pérez had made many election promises and vowed to save the economy.[124] However, his promises became empty ones even though he did launch a programme of reform to cut back on spending and strengthened the society's safety net for the poor. But undoing a petro-state was difficult.[125] The austerity policies enacted shortly after he was sworn into the office triggered widespread discontent among the public. Voters felt deceived and lost faith in Pérez presidency and in the elitist democratic system.[126]

Mounting social unrest ensued one month after Pérez ascended to the presidency. In view of the serious government deficit crisis, Pérez announced a doubling gasoline consumer price and cut its government subsidy. Public transport operators increased their fares by 30% while some drivers even demanded higher fares from commuters.[127] The increase in transport fares led to one of the most deadly and serious riots in Venezuelan history. Citizens, including thousands of students, took to the streets of the capital Caracas and protests exploded, accompanied by looting and violent attacks. The Government finally clamped down on the protests, resulting in a death toll of 350 with many injured.[128]

[123] The process also involved lobbying by representatives of client sectors who are also board of directors of state-owned entreprise and members of consultative committee.
Ibid.
[124] George Philip, "When oil prices were low: Petroleos de Venezuela and economic policymaking in Venezuela since 1989," *Bulletin of Latin America Research*, 18(3) (1999): 364.
[125] Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2011), 115.
[126] George Philip, "When oil prices were low: Petroleos de Venezuela and economic policymaking in Venezuela since 1989," *Bulletin of Latin America Research*, 18(3) (1999): 364.
[127] Ibid.
[128] Ibid.

Continued political instability

Venezuela continued to be politically unstable after the deadly riot was suppressed. The aftermath was severe with public outrage steadily growing, which eventually led to the change in Head of State. Partly because of public sympathy towards the protesters and rising resentment of the Government, legislative councilors cooperated less with the Government. Many even left their party, formed their own parliamentary bloc and openly criticized the Government.[129] The traditional political parties, interest groups and those who benefited from the special distribution of rent united to oppose President Pérez.[130] Because of the deep unpopularity of President Pérez, even the ruling party Acción Democrática vote for his impeachment on corruption charge.[131]

Further political turmoil ensued. In the wake of the decline of the government, military officers took advantage and began to contemplate a Coup d'état. In 1992, military officer Hugo Rafael Chávez Frías launched two coups in an attempt to overthrow the Government. Though the coup attempts were thwarted in the end, they attracted widespread public sympathy.[132] Therefore, Chávez became a credible political alternative choice and paved the way for his election as president in 1998.[133]

IV. Root cause of instability

Inadequate fiscal reserves

Venezuela suffered a hard knock during the 1985 oil price crash because it did not have adequate fiscal reserves. The country did not make good use of the sudden windfall of oil revenue in 1970s. In that period, Venezuelan enjoyed a windfall of additional government revenue valued at 523%

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[129] Francisco Monaldi and Michael Penfold, "Institutional Collapse: The rise and Decline of Democratic Governance in Venezuela" (paper presented in the Conference "Venezuelan Economic Growth, 1975-2005." Center for International Development, Harvard University, April 27-28, 2006.).
[130] Daniel Yergin, *The Quest: Energy, Security, and the Remarking of the Modern World* (New York: Penguin Books, 2011), 115.
[131] Francisco Monaldi, Rosa Amelia Gonzalez, Richard Obuchi and Michael Penfold, "Political Institutions, Policymaking Process and Policy Outcomes in Venezuela," Latin American Research Network, accessed June 13, 2016, http://www.iadb.org/res/laresnetwork/files/pr231finaldraft.pdf.
[132] Francisco Monaldi, Rosa Amelia Gonzalez, Richard Obuchi and Michael Penfold, "Political Institutions, Policymaking Process and Policy Outcomes in Venezuela," Latin American Research Network, accessed June 13, 2016, http://www.iadb.org/res/laresnetwork/files/pr231finaldraft.pdf.
[133] Ibid.

of 1973 GDP of the country.[134] Instead of saving the money for use during future crisis, the Venezuelan Government wasted the money on inefficient state-owned enterprises. Therefore, it was ill prepared for oil revenue dropping in 1985 oil price crash.

Moreover, Venezuelan Government's preparation for future crisis was inadequate. In 1974, Venezuelan Government set up a sovereign fund intended to offset future oil price shocks, namely the Venezuelan Investment Fund. However, instead of investing in overseas assets to hedge against a future domestic economic crisis, the Fund heavily invested in the already-overheated Venezuelan economy and became a major shareholder of many inefficient public firms.[135] As a result, it lost the function of providing foreign capital to rescue domestic economies during times of crisis. If Venezuela had maintained a sizable foreign reserve, its economy would have been in better shape and it may well avoided political instability.

Lastly, the lack of reserve also forced the government to print money to finance itself, which caused rampant inflation. From 1986 to 1988, the Venezuelan government ran on a deficit budget of over 5%.[136] As the government could not borrow more external debt, it resorted to printing money to finance the deficit. Printing money caused inflation as money supply was artificially increased. Therefore, if Venezuela had had more fiscal reserves, its inflation problem would have been a lot better.

Failed economic reform

The impact of the oil price crash was also magnified by the failure of economic reform in Venezuela. The Venezuela government attempted to diversify and industrialize its economy through the creation of state-owned enterprises that focused on substituting imports. However, the state-owned enterprises were inefficient and wasted considerable oil rents. To discourage imports and to protect its inefficient industries, Venezuela further enacted severe regulations and erected substantial import barriers in the 1950s. These measures eroded the competitiveness of the private sector in Venezuela.

[134] Maria Antonia Moreno and Cameron A. Shelton, "Chapter 9: Sleeping in the Bed One Makes, The Venezuelan Fiscal Policy Response to the Oil Boom," in *Venezuela before Chavez: Anatomy of an Economic Collapse,* edited by Ricardo Hausmann and Francisco Rodriguez, (Pennsylvania: Pennsylvania State University Press, 2015), 259-284.
[135] Ibid.
[136] Diego Restuccia, "The Monetary and Fiscal History of Venezuela, 1960-2005," published in August, 2010, accessed 22 July, 2016, https://www.economics.utoronto.ca/diegor/research/MFHLA_paper.pdf.

The efficiency of public investment in Venezuela was hampered by the political system characterized by the domination of the elites in two political parties.[137] The two parties bought support from its nationals through the client system of rent distribution. Politician corruption was not checked as the two major parties had overwhelming influence over the bureaucracy, law enforcement and the judiciary.[138] As a result, politicians were corrupt and major decisions were made through behind-the-scene negotiations.[139] President Pérez, who ruled Venezuela between 1974 and 1979, was known to issue contracts to his favorite contacts in the construction sector.[140] Many state-owned enterprises were inefficient and investment decisions were based on political factors rather than economic factors. Therefore, state-owned enterprises in Venezuela were not efficient and could not compete internationally.

Government played the most important role in the industrialization of Venezuela. The GDP share of non-oil state-own enterprises increased from 3.2% in 1970 to 7.2% in 1982.[141] Public sector spending also ballooned from 15.4% of GDP in 1973 to 30.3% in 1980.[142] Public investment steadily increased from 24% of all investment in 1970 to 67% in 1982. Nevertheless, the state-owned enterprises were inefficient and they could not develop into sustainable and healthy industries. And, they relied on continued state support. During the oil price crash, manufacturing collapsed as the government was forced to cut its subsidies to state-owned enterprise and they could not survive.

Because of the faulty development strategy, Venezuela failed to diversify and continued to rely on oil revenue as the main stay of its economy. Therefore, its economy suffered a lethal blow when oil revenue declined sharply.

137 George Philip, "When oil prices were low: Petroleos de Venezuela and economic policymaking in Venezuela since 1989," *Bulletin of Latin America Research*, 18(3) (1999): 362.
138 Ibid.
139 Ibid.
140 Ibid.
141 Omar D Bello, Juan S Blyde and Diego Restuccia, "Working Paper 431: Venezuela's Growth Experience," Department of Economics, University of Toronto, published June 3, 2011, accessed June 13, 2016, https://www.economics.utoronto.ca/public/workingPapers/tecipa-431.pdf
142 Ibid.

Algeria

With its first major discovery of black gold in the 1950s, oil eventually became the engine of the Algerian economy. The tremendous oil revenues enabled the Algerian government to fuel its economic development initiatives and fund an extensive state-supported welfare system, especially food subsidies. The redistribution of proceeds from oil export to its people had also allowed the Algerian government to be free of political accountability until the mid-1980s. However, Algeria experienced a "Dark Decade" in the 1990s with an estimated death toll of 200,000. The source of this violent conflict can be traced back to the mid-1980s when oil prices crashed. The deep decline in oil prices started from 1985 exposed the various inefficiencies in economic reforms and the heavy reliance on oil revenue in Algeria. The oil price crash greatly decreased oil export receipts, seriously drained Algeria's fiscal reserves and affected its ability to finance its development investment, continue its welfare programme and pay its debts. There was a sharp decline in living standards and a dramatic rise in unemployment. The refusal of help from the International Monetary Fund (IMF) and the decision to cut public spending further generated widespread anger among Algerians which erupted into a week-long uprising and riots in October 1988. The violence brought about constitutional reform (i.e. put an end to one-party rule) and the onset of the Algerian civil war in the 1990s.

This section will demonstrate why the fall in oil prices in 1985 was a major and undeniable cause of Algeria's violent conflicts and the onset of the Algerian civil war. It will first set out the importance of oil revenues to the economy of Algeria. It will then establish the link between the sharp fall in oil prices, the failing economy and social instability in Algeria. The sharp drop in oil revenue triggered a recession, hyperinflation and high unemployment in Algeria. It also depleted Algeria's fiscal reserves. The Algerian government was at the brink of bankruptcy and was unable to repay its debts and continue its food subsidies and other welfare. The tottering economy finally led to the introduction of an austerity policy, with riots in 1988 and the onset of civil war in the 1990s as direct results.

In the case of Algeria, two critical factors contributed to political instability during the period of oil prices crash: 1) insufficient fiscal reserves to support the government in dealing with the economic crisis and maintaining social security programmes. The dire financial situation of the government led to the introduction of an austerity policy which drastically affected the basic living standards in Algeria. And 2) incapability of the Algerian government to carry out effective and timely economic reform to diversify its oil-dependent economy and offset the impact of dramatic oil prices fluctuations.

I. Oil Revenues: the lifeblood of Algeria

Before the discovery of oil in the 1950s, Algeria's economy was largely based on agriculture. With the oil discovery in the late 1950s and Algeria's independence in 1962, the oil industry had become the engine and backbone of Algeria's economy. The dramatic increase in oil revenues in 1960s and 1970s had shifted the government's development focus to the oil industry. With the substantial oil revenue, extensive industrialization had taken place during the period. It had transformed the economy of Algeria, making it one of the wealthiest nations in Africa.[143] Until the early 1980s, the economic growth indicators of Algeria were impressive. The average GDP growth rate between 1965 and 1980 was 7.5%, the highest among oil-exporting developing countries.[144]

In the 1980s, oil still dominated the economy of Algeria. According to the U.S. Energy Information Administration (EIA),[145] Algeria estimated oil reserves of 8.1 – 9.4 billion barrels in the 1980[146]and its oil fields produced high-quality light crude oil with very low sulfur content.[147] Being the largest oil producing country in Africa, oil export revenue accounted for 95% of the country's total export in the 1980s, up from less than 50% in the 1960s.[148] Oil revenues also contributed to 38% and 25.8% of Algeria's GDP in 1975 and 1985 respectively.[149] These figures demonstrated that Algeria's economy was heavily relied on oil revenues.

143 Paul Collier and Nicholas Sambanis, *Understanding Civil War (Volume 1: Africa): Evidence and Analysis* (Herndon: The World Bank, 2005), 224.
144 Ibid.
145 "International Energy Statistics - Crude oil Proved Reserves 2015 – Algeria," U.S. Energy Information Administration, accessed July 14, 2016, http://www.eia.gov/beta/international/data/browser/#?iso=DZA&c=0000000000004&ct=0&ord=CR&cy=1985&v=H&vo=0&so=0&io=0&start=1980&end=1989&vs=INTL.57-6-DZA-BB.A&pin=p&pa=0000000000000000000008&f=A&ug=g&tl_type=p&tl_id=5-A.
146 Algeria ranks 16th in oil reserve with a total reserve of estimated 12.2 billion barrels in 2015.
147 "Algeria: Country Analysis Briefs," U.S. Energy Information Administration, March 11, 2016, accessed July 15, 2016, https://www.eia.gov/beta/international/analysis_includes/countries_long/Algeria/algeria pdf.
148 Ali Aïssaoui, *Algeria: The Political Economy of Oil and Gas*, (Oxford: Oxford University Press, 2001), 231.
149 Paul Collier and Nicholas Sambanis, *Understanding Civil War (Volume 1: Africa): Evidence and Analysis* (Herndon: The World Bank, 2005), 224.

Moreover, oil revenues had also become the major source of funding of the government budget. In 1985, the oil revenue accounted for 58% of government income, up from 31% in the early 1970s.[150] With the substantial oil revenue during oil price boom in the 1970s and the optimistic forecast for future oil prices, the government was able to promote its centrally planned economic initiatives (i.e. industrialization) funded by oil revenue and international loans.[151] The industrialization had encouraged rural-urban migration, leading to a growth of urban population from 30% in early 1960s to 50% in 1988.[152]

II. Economic consequence of the oil prices crash

Oil prices collapsed since November 1985, falling from their previous height of around US$30 per barrel at the beginning of the decade to a low of below US$10 per barrel for a few months in 1986. As a result, the oil revenues of Algeria declined by more than 50%. The export earnings from the oil sector fell from the peak of US$14.2 billion in 1981 to US$7.3 billion in 1986.[153] This oil price plunge led to a series of economic consequences for Algeria.

Firstly, the steep drop in revenue had a huge impact on Algeria's economy given that 25% of its GDP was contributed by the oil industry. Algeria had entered into recession with its GDP growth rate decreasing from 5.6% growth in 1985 to -0.2% in 1986, and it fell further to -1.9% in 1988. Per capita gross national product (GNP) had also declined by roughly 2.5% annually, from a high of US$1,789 in 1985 to a low of US$1,370 in 1994, a drop of 24% in nine years.[154] With such substantial decrease in per capita GNP, the purchasing power, and thus the living standards of Algerians had decreased sharply. Moreover, since the majority of enterprises were stated owned,

[150] Miriam Shabafrouz, "Oil and the Eruption of the Algerian Civil War: A Context-sensitive Analysis of the Ambivalent Impact of Resource Abundance," Working Paper No. 118, German Institute of Global and Area Studies (GIGA), published January 2010, accessed June 2, 2016, https://www.giga-hamburg.de/en/system/files/publications/wp118_shabafrouz.pdf.
[151] Miriam Lowi, "War-Torn or Systematically Distorted? Rebuilding the Algerian Economy." In *Rebuilding Devastated Economies in the Middle East*, ed. Leonar Binder. (New York: Palgrave Macmillan, 2007), 127-151.
[152] Cathie Lloyd, "Multi-causal Conflict in Algeria: National Identity, Inequality and Political Islam," Working Paper No. 104, Queen Elizabeth House (QEH), published April 2003, accessed July 18, 2016, https://core.ac.uk/download/files/153/6759437.pdf.
[153] Paul Collier and Nicholas Sambanis, *Understanding Civil War (Volume 1: Africa): Evidence and Analysis* (Herndon: The World Bank, 2005), 224.
[154] Ibid.

the decrease in oil revenues implied that the investment in these enterprises would decrease. The unemployment rate thus rose from 16% in 1983 to 23.6% in 1989 and 30% in the 1990s.[155]

Secondly, the steep decline in oil revenues had worsened the debt problem of Algeria. Algeria was already heavily in debt in 1985 due to loans for industrial reform in the 1970s and early 1980s. It became further indebted (by getting more international loans) in order to compensate for the falling oil revenues.[156] The ratio of external debt to GDP thus rose from 31% in 1985 to 42% in 1988. The debt service ratio also rose from 33% in 1982 to 68% in 1986 and 86% in 1988.[157] Moreover, the diner[158] had depreciated from 5.03 dinar to one U.S. dollar in 1985, to double value in 1990, and gone even further to 22.50 dinar to one U.S. dollar in 1992. This currency deflation had multiplied the weight of the debt. All these had brought Algeria to the brink of bankruptcy.

Thirdly, the sharp drop in oil revenue had exacerbated the fiscal deficit of the Algerian government and drained Algeria's fiscal reserves. The government was in substantial fiscal deficit before 1985 due to its lending to state-owned enterprises. This fiscal weakness was exacerbated when oil prices were slashed. In order to maintain their operation, the Algerian government had to tap, and thus drained its fiscal reserves. The fiscal reserves of Algeria decreased from US$ 4.65 billion in 1985 to US$ 2.7 billion in 1990.[159]

Fourthly, the crisis eroded the government's welfare capacity, and seriously affected the basic living standards of Algerians. While Algeria's agriculture was unable to meet domestic needs, the Algerian government had to import food to meet the deficit. Food imports and food subsidies amounted to US$2.2 billion in 1986, which was 20% of total oil revenue. In view of the falling oil revenue, the Algerian government had to reduce food imports and food subsidies in 1988. The reduction in food subsidies had led to increases in food prices of 40% between January and October 1988. [160] There was also massive shortage of essential goods due to cut in imports. Poverty grew

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[155] Cathie Lloyd, "Multi-causal Conflict in Algeria: National Identity, Inequality and Political Islam," Working Paper No. 104, Queen Elizabeth House (QEH), published April 2003, accessed July 18, 2016, https://core.ac.uk/download/files/153/6759437.pdf.

[156] Ali Aïssaoui, *Algeria: The Political Economy of Oil and Gas*, (Oxford: Oxford University Press, 2001), 231.

[157] George Joffé, "The role of violence within the Algerian economy," *The Journal of North African Studies, 7*(1) (2002): 29-52.

[158] Dinar is the currency of Algeria

[159] "Total reserves (includes gold, current US$) – Algeria," The World Bank, accessed June 11, 2016, http://data.worldbank.org/indicator/FI.RES.TOTL.CD?locations=DZ.

[160] Will D. Swearingen, "Algeria's Food Security Crisis." *Middle East Report*, 20 (166) (September - October 1990): 21-25.

significantly between 1987 and 1995, when 22.6% of the population was living below the poverty line.[161] The basic living standard of many Algerians had been seriously affected as a result.

III. Political instability an inevitable result

The high oil prices and tremendous oil receipts of the 1970s had allowed President Houari Boumediene, who ruled the country from 1965 until 1978, to finance an extensive state-supported welfare system, allowing him to be free from popular political accountability. The steep drop in oil revenue due to 1985 oil price crash had undermined the government's ability to provide services and subsidize important staples. While Algeria was on the brink of bankruptcy, President Chadli Bendjedid (successor of President Boumediene, and ruled Algeria from 1979 until 1992) refused to default on the country's debts. Instead, he introduced a drastic austerity policy which included radical reductions in subsidies for staple foods, the lifting of price controls, the downsizing of welfare programmes, and a cut in import.[162] It had resulted in a calamitous fall in the Algerians' purchasing power and negative reactions from the Algerians.[163] Furthermore, inflationary pressures as a result of dinar devaluation and the rising price in food imports aggravated the overall economy and purchasing power of the population. The already worsened basic living standards fell further.

Riots in 1988

The austerity policy introduced by President Bendjedid in 1986, together with economic malaise, food shortages and high unemployment, had generated widespread anger among Algerians. This had eventually erupted into a week-long uprising and riots which started on October 5, 1988 and ended on October 11, resulting in about 500 deaths and 1,000 wounded.[164] Although the riots were cracked down by the military, the frustration of Algerians had deepened. The government thus had to initiate substantive political reforms. A new constitution was introduced in 1989 which

[161] "African Economic Outlook – Algeria," OECD, accessed June 11, 2016, http://www.oecd.org/countries/algeria/32411852.pdf.
[162] Miriam Shabafrouz, "Oil and the Eruption of the Algerian Civil War: A Context-sensitive Analysis of the Ambivalent Impact of Resource Abundance," Working Paper No. 118, German Institute of Global and Area Studies (GIGA), published January 2010, accessed June 2, 2016, https://www.giga-hamburg.de/en/system/files/publications/wp118_shabafrouz.pdf.
[163] Cathie Lloyd, "Multi-causal Conflict in Algeria: National Identity, Inequality and Political Islam," Working Paper No. 104, Queen Elizabeth House (QEH), published April 2003, accessed July 18, 2016, https://core.ac.uk/download/files/153/6759437.pdf.
[164] "Algeria: Riots of October 1988," United Nations High Commissioner for Refugees (UNHCR), accessed June 2, 2016, http://www.refworld.org/docid/3ae6aba95c.html.

allowed the formation of political parties other than the single ruling party, National Liberation Front (FLN), for competition. The new constitution allowed other political parties to compete freely in municipal and parliamentary elections. Approximately 50 parties were created under the new constitution. Among these parties, Islamic Salvation Front (FIS) was the most successful and won more than half of all votes cast in municipal elections in June 1990, while the FLN only obtained 34% of the vote. [165] The ruling FLN was losing its control over the state. The new constitution ended the one-party rule in Algeria, present since independence, and laid the foundations for the subsequent violent conflict.

Onset of Algerian Civil War in 1990s

As the popularity of FIS increased, the political atmosphere became increasingly tense among FLN and FIS. The ruling party, FLN introduced repressive measures to maintain its power. However, such repressive measures increased the popularity of the opposing FIS even further. Moreover, the FIS made use of the widespread discontent and distrust of the governing FLN to broaden its support base.[166] Another conflict began in December 1991 when the FIS was expected to take over the ruling role of FLN in the national parliamentary elections by winning 188 out of 231 seats in the first round of parliamentary elections. The second round of elections was scheduled for mid-January of 1992. Fearing that FIS would really dominate parliament, the military stepped in, which forced President Bendjedid to resign, took control of the government, cancelled the second round of parliamentary election and proclaimed a state of emergency. Afterwards, violent conflicts between various Islamic groups and the military started and became a civil war which only ended in 1998 with an estimated death toll of 200,000.[167]

IV. Root causes of instability

As demonstrated in previous sections, the slash in oil prices had led to economic malaise and then caused political instability in Algeria. There were two root causes that contributed to the

[165] “Algeria – Politics,” Global Security.org. Accessed June 11, 2016, http://www.globalsecurity.org/military/world/algeria/politics.htm
[166] Miriam Shabafrouz, “Oil and the Eruption of the Algerian Civil War: A Context-sensitive Analysis of the Ambivalent Impact of Resource Abundance,” Working Paper No. 118, German Institute of Global and Area Studies (GIGA), published January 2010, accessed June 2, 2016, https://www.giga-hamburg.de/en/system/files/publications/wp118_shabafrouz.pdf
[167] Alexis Arieff, “Algeria current issues,” Congressional Research Service, published November 18, 2013, accessed June 11, 2016, https://www.fas.org/sgp/crs/row/RS21532.pdf.

political instability during the period of the oil prices crash, namely failed economic reform and inadequate fiscal reserves.

Failed economic reform

The first root cause of political instability was the inability of the Algerian government to carry out effective and timely economic reforms to diversify its oil-dependent economy and offset the impact of oil prices crash.

The heavy reliance on oil revenues has distorted the structure of the Algerian economy. Industries other than the hydrocarbons industry were underdeveloped. This can be seen from the large decrease in components of normal taxes (i.e. taxes other than those form the oil sector) from 58% in early 1970s to 34.2% in 1980.[168] Having regard to this, the government carried out economic reforms with a view to diversifying its economy during the 1970s and early 1980s. The reform focused almost entirely on developing the industrial sector and relied on oil exports to support its development. The domestic industry, especially the agricultural sector, was neglected during the economic reform.

The industrialization had been aimed at generating employment and enhancing the development of the wider economy.[169] During the high oil prices of the 1970s, instead of saving the oil receipts, a considerable amount of the oil revenue (as much as 80%) was invested in the industrialization programme. Among these investments, 90% was channeled to the public sector and primarily to capital-intensive industrial projects.[170] Nonetheless, Algeria had made slight progress in its diversification drive. Many of these industrialization projects were poorly designed. The stated-owned enterprises were oversized and inefficient. The undiversified economy of Algeria was thus unable to offset the impact of oil price crash in 1985 to 1986. Furthermore, instead of successfully diversifying the economy of Algeria, the above initiatives brought two heavy burdens to Algeria. Firstly, it incurred substantial debts. The total debt of Algeria increased from US$ 1 billion to

[168] Miriam Shabafrouz, "Oil and the Eruption of the Algerian Civil War: A Context-sensitive Analysis of the Ambivalent Impact of Resource Abundance," Working Paper No. 118, German Institute of Global and Area Studies (GIGA), published January 2010, accessed June 2, 2016, https://www.giga-hamburg.de/en/system/files/publications/wp118_shabafrouz.pdf.
[169] Cherif Begga, "Attempts to Industrial Reforms in Algeria: Do they fit the logic of Globalization?", *Topics in Middle Eastern and African Economies* 16(1) (2014): 96-113.
[170] Paul Collier and Nicholas Sambanis, *Understanding Civil War (Volume 1: Africa): Evidence and Analysis* (Herndon: The World Bank, 2005), 224.

US$19.3 billion between 1970 and 1980 [171] and these foreign debts began to fall due in the mid-1980s. [172] Secondly, the agriculture sector had been neglected, leading to more reliance on food imports and food subsidies. According to Aouragh (as cited in Shabafrouz, 2010[173]), domestic agricultural production was able to meet 70% of Algeria's needs in 1969. The figure dropped to 50% of in 1982 and to only 20% in 1987. To cover production shortfalls, the government has had to import staple foods and other basic commodities at significantly higher prices, and provide them at low, subsidized consumer prices to its citizens using oil revenue. The import costs amounted to US$2.2 billion in 1986, which was 20% of the total net receipts from oil. [174]

Because of the faulty development strategy, Algeria could not diversify its economy and continued to rely on oil revenues as the main driver of its economy. The above together resulted in Algeria becoming significantly indebted, despite its high oil revenue, and accelerated the economic crisis during the oil price crash in 1985 and 1986.

Inadequate fiscal reserves

The second root cause was the inadequate fiscal reserves available to support the government in dealing with the economic crisis and maintaining social security. During the high oil prices in 1970s, instead of saving the oil receipts, a considerable amount of the oil revenue (as much as 80%) was invested in the industrialization programme and no savings were left from the oil revenue.[175] The fiscal reserve in 1985 was just US$4.65 billion.[176] Moreover, Algerian government engaged in heavy foreign borrowing to finance its infrastructure projects. In 1980, its foreign debt grew to US$16.9 billion. During the oil prices crash in 1985 and 1986, the situation worsened. The debt to

[171] "External debt stocks, total (DOD, current US$) - Algeria 1970-2014" The World Bank, accessed June 11, 2016, http://data.worldbank.org/indicator/DT.DOD.DECT.CD?locations=DZ.
[172] Paul Collier and Nicholas Sambanis, *Understanding Civil War (Volume 1: Africa): Evidence and Analysis* (Herndon: The World Bank, 2005), 224.
[173] Miriam Shabafrouz, "Oil and the Eruption of the Algerian Civil War: A Context-sensitive Analysis of the Ambivalent Impact of Resource Abundance," Working Paper No. 118, German Institute of Global and Area Studies (GIGA), published January 2010, accessed June 2, 2016, https://www.giga-hamburg.de/en/system/files/publications/wp118_shabafrouz.pdf.
[174] Ibid.
[175] Miriam Lowi, "War-Torn or Systematically Distorted? Rebuilding the Algerian Economy." In *Rebuilding Devastated Economies in the Middle East*, ed. Leonar Binder. (New York: Palgrave Macmillan, 2007), 127-151.
[176] "Total reserves (includes gold, current US$) – Algeria," The World Bank, accessed June 11, 2016, http://data.worldbank.org/indicator/FI.RES.TOTL.CD?locations=DZ.

service ration increased more than double from 35% in 1985 to 80% in 1988.[177] The Algerian government was unable to sustain the debt repayment and had to introduce austerity policies which drastically affected the basic living standard of Algerians.

[177] Mohammed Saad, "Matching Reform with a New Approach to the Management of People, Learning and Culture," in *Transition and Development in Algeria: Economic, Social and Cultural Challenges*, ed. Margaret A. Majumdar and Mohammed Saad, (Bristol: Intellect, 2005), 49.

Saudi Arabia

Thanks to the massive crude oil reserves of around 170 billion barrels in 1980s,[178] the Kingdom of Saudi Arabia became the largest oil exporter with the economy mainly reliant on oil sales. Regardless of the fluctuations in oil prices, its export of crude oil and petroleum products had never been dropped below 90% between 1973 and 1985.[179] At the same time, oil and gas sales also accounted for more than two-third of the Kingdom's GDP.[180]

Despite the similarity between Saudi Arabia and the other three petro-states in terms of economic reliance on oil exports, Saudi Arabia is the country that was able to survive the 1985 oil price shock. The oil price dip did not bring about economic turmoil in Saudi Arabia as massive and turbulent as that in the other three petro-states. The economic setback there did not shake the foundations of society or cause any political instability that could result in a change of the head of state, widespread social unrest, military coups, civil wars or even the collapse of the Kingdom, unlike the other three case studies.

The absence of political instability in Saudi Arabia during the 1985 oil price crash does not refute our theory of oil price shock leading to political instability. On the contrary, it has affirmed our theory: size does matter. Abundance of fiscal reserves saved the Kingdom from the oil price dip, a factor missing in the other three cases in the bygone era of the late 1980s.

In the following section, we will first elaborate the importance of oil revenues to the survival of the Kingdom. After that it will analyse the relatively mild economic hardship triggered by the falling oil price in Saudi Arabia. It will then explain why the Saudi Arabia could avoid falling prey to political instability by highlighting the importance of an indispensable factor that set Saudi Arabia apart from the others: enormous fiscal reserves. It was the huge amount of reserves that saved the country from economic as well as political turmoil.

178 "Saudi Arabia: oil reserves," The Global Economy.com (source data from the U.S. Energy Information Administration), accessed June 19, 2016, http://www.theglobaleconomy.com/Saudi-Arabia/oil_reserves/.
179 "What does Saudi Arabia export? (1973-1985)," The Observatory of Economic Complexity, accessed May 26, 2016, http://atlas.media.mit.edu/en/visualize/tree_map/sitc/export/sau/all/show/1973/.
180 Siamack Shojai, "A Theoretical Framework for Macroeconomic Modeling of OPEC Members," in *The Oil Market in the 1980's: A Decade of Decline*, ed. Siamack Shojai and Bernard S. Katz (New York: Praeger Publishers, 1992), 18.

I. Oil revenues: the lifeblood of the Kingdom

Similar to the other three petro-states, oil wealth was all along the lifeblood of Saudi Arabia. As an oil-dependent country, Saudi Arabia benefitted hugely from the oil price surge as a result of OPEC's oil embargo and other factors in the 1970s to the early 1980s. The immense oil production power enabled Saudi Arabia to rise to the stage of one of the fast-growing economies in the world. The Kingdom reached its economic peak with cumulative oil revenues of SR$1374.6 billion between 1974 and 1981, almost twentyfold when compared to that of the pre-oil boom years from 1970 to 1973.[181]

The drastic increase in oil wealth led to a surge in Saudi Arabia's GDP (billions of U.S. dollars). From the pre-oil boom year in 1970 to the golden year of 1981, Saudi's GDP increased almost thirty-five-fold from SR$24.21 billion (US$5.38 billion) to SR$622 billion (US$184.29 billion).[182] Regardless of oil price fluctuations, the oil sector continued to dominate Saudi's economy. Exports of crude oil and petroleum products accounted for 90% of the Kingdom's total exports,[183] 65% of GDP[184] and around 90% of total's government revenue[185] between the oil boom in the 1970s and 1985 oil price crash.

Oil revenues thereby became the major source of income to fund Saudi government operations and goals. And, more importantly, it fueled extensive social welfare programmes for Saudis in order to maintain social stability and the parental relationship between the Saudi government and its people.

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[181] Mohamed A. Ramady, *The Saudi Arabian Economy: Policies, Achievements, and Challenges* (New York: Springer, 2010), 45.

[182] "Saudi Arabia: GDP, current U.S. dollars," The Global Economy.com, accessed June 19, 2016, http://www.theglobaleconomy.com/Saudi-Arabia/GDP_current_USD/.

[183] "What does Saudi Arabia export? (1973-2013)," The Observatory of Economic Complexity, accessed May 26, 2016, http://atlas.media.mit.edu/en/visualize/tree_map/sitc/export/sau/all/show/1973/.

[184] Siamack Shojai, "A Theoretical Framework for Macroeconomic Modeling of OPEC Members," in *The Oil Market in the 1980's: A Decade of Decline*, ed. Siamack Shojai and Bernard S. Katz (New York: Praeger Publishers, 1992), 18.

[185] Adne Cappelen and Robin Choudhury, "The Future of Saudi Arabian Economy: The Possible Effects on the World Oil Market," Statistics Norway, published April 2000, accessed July 21, 2016, https://www.ssb.no/a/publikasjoner/pdf/rapp_200007_en/rapp_200007_en.pdf.

II. Absence of economic crisis during oil price crash

The Kingdom's over-dependence on oil revenue implied that any fluctuations in oil prices would have an immediate impact on the Kingdom's revenue. When oil prices began to drop in November 1985, Saudi Arabia's oil revenues saw a drastic slump, more than three-fold. The Kingdom's oil money swiftly dropped from its peak of SR$1374.6 billion between 1974 and 1981, to SR$540.3 billion between 1982 and 1985, and fell further to SR$478.3 billion between 1986 and 1991.[186] As oil revenues are closely associated with GDP; Saudi Arabia's GDP (billions of U.S. dollars), therefore, fluctuated dramatically according to oil prices. Between 1981 and 1987, the Kingdom's GDP (billions of U.S. dollars) plummeted more than a double, form the peak of SR$622 billion (US$184.29 billion) to SR$321 billion (US$$85.7).[187]

Though Saudi Arabia encountered tremendous drops in oil revenues, the Kingdom did not experience an economic crisis as critical as it was in the Soviet Union, Venezuela and Algeria. It did not have to seek financial support from international banks and financial institutions to support the government spending. Instead, it exercised various financial means to obtain money and thus cover debts and to maintain the Kingdom's economic operations. Saudi government kept its debts entirely domestic and did not seek help from any international monetary organizations like Algeria, which was later compelled to undergo various reforms in order to secure international loans.[188]

Financial means played by the Saudi government included but were not limited to the selling of government debt to domestic banks,[189] and the selling of government bonds to state-owned pension funds. In Saudi Arabia, around 75% to 80% of government debt is held by two government pension funds and only less than 20% is held by commercial banks, private companies and individuals.[190] Therefore, unlike the Soviet Union, Venezuela and Algeria that had to deal with the foreign debt problems and were forced to implement unpopular economic reforms

[186] Mohamed A. Ramady, *The Saudi Arabian Economy: Policies, Achievements, and Challenges* (New York: Springer, 2010), 45

[187] "Saudi Arabia: GDP, current U.S. dollars," The Global Economy.com, accessed June 19, 2016, http://www.theglobaleconomy.com/Saudi-Arabia/GDP_current_USD/

[188] F. Gregory Gause III, "Oil and Political Mobilization in Saudi Arabia," in *Saudi Arabia in Transition: Insights on Social, Political, Economic and Religious Change*, ed Bernard Haykel, Thomas Hegghammer, Stephane Lacroix (New York: Cambridge University Press, 2015), 25.

[189] Ibid, 27.

[190] Anthony H. Cordesman, *Saudi Arabia Enters the Twenty-First Century: The Political, Foreign Policy, Economic and Energy Dimensions* (Westport: Praeger Publishers, 2004), 410.

demanded by the international financial institutions and banks, the Saudi government, by way of contrast, owed most of its debts to itself and kept debt problems entirely domestic through the manipulation of funds.[191] Without seeking help from international financial institutions for loans, Saudi Arabia was not subject to any changes of economic policies demanded by these institutions and thus minimized the risk of introducing wrong policies at the wrong time. The Kingdom maintained financial independence and dealt with the global oil price recession at its own pace.

Saudi Arabia also enjoyed a relatively stable currency rate without meeting inflationary pressure as intense as those in the Soviet Union. To maintain currency stability, it pegged the currency Saudi Riyal, to the U.S. dollar in 1986 at a fixed exchange rate of SR$1 to US$3.75. This immediate government policy in response to the oil price slash minimized currency speculation activity. It maintained currency stability and independent financial status, which enabled the Kingdom to minimize the negative impact of oil price slump and thus to stabilize the economy.

III. Immense advantage: enormous fiscal reserves

Devoid of economic downturn

The main reason why Saudi Arabia could withstand the 1985 oil slump was the existence of an unparalleled advantage that was not seen in petro-states like the Soviet Union, Venezuela and Algeria: enormous fiscal reserve. Reserves in Saudi Arabia were massive enough to fend off economic recession and subsequent political turmoil. During the golden age of the oil boom from 1974 to 1981, the Saudi government accumulated almost US$200 billion of foreign exchange reserves (including gold).[192] Foreign exchange reserves held by Saudi Arabia was twice that of Venezuela and six-and-a-half-fold more than Algeria.[193]

Due to the advantage of enormous fiscal reserves, the Saudi government had the ability to maintain deficit spending. King Fahd, the then King of Saudi Arabia, repeatedly promised to protect his

[191] Ibid, 411.
[192] "Saudi Arabia: Reserves," The Global Economy.com, accessed June 19, 2016, http://www.theglobaleconomy.com/Saudi-Arabia/Reserves/.
[193] Cumulative foreign exchange reserves of Venezuela (1974 to 1981): US$85.2 billion. Data obtained from: "Venezuela: Reserves," The Global Economy.com, accessed June 19, 2016, http://www.theglobaleconomy.com/Venezuela/Reserves//
Cumulative foreign exchange reserves of Algeria (1974 to 1981): US$31.18 billion. Data from: "Algeria: Reserves," The Global Economy.com, accessed June 19, 2016 http://www.theglobaleconomy.com/Algeria/Reserves/.

people from economic hardship[194] and continued delivering extensive welfare to the people. Even though Saudi oil revenues plummeted almost three-fold, from SR$1374.6 billion (1974-1981) to SR$478.3 billion (1986-1991);[195] Saudi government expenditure fell by a much smaller amount. Government spending dropped just slightly by 16% from SR$121.7 billion in 1981 to SR$102.3 billion in 1988.[196] In 1991, the Saudi government even spent more than it actually spent in 1981, despite the fact that oil prices had dropped more than 60% between these years.

Sufficient cash in hand also allowed Saudi Arabia to reduce the burden of oil price crash and it sustained a longer period of deficit spending during the 1985 oil bust and its aftermath.[197] It allowed Saudi Arabia to maintain deficit spending, prevented economic recession and protected its people from suffering economic hardship. It also allowed the Kingdom to maintain its financial independence without interference in its domestic economic and monetary policies by international lenders.

Ability to build strong reserves

Nonetheless, Saudi Arabia and the other three petro-states were all oil-dependent countries. What made Saudi Arabia stand out from its peers to store up strong fiscal reserves to keep the economy afloat and its society stable? All in all, it was the ability of Saudi Arabia to save money for a rainy day. Saudi Arabia was dubbed a "swing producer". It was the world's largest oil exporter and had spare production capacity to increase oil production at an extremely low cost. Its oil production flexibility allowed the country to sway the global oil supply and therefore affect the price. Compared to oil states with smaller production scales and with higher production costs, which were not able or were unwilling to save oil revenue during oil boom years;[198] it was much easier for Saudi Arabia to save excess oil revenues during oil boom years.[199]

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[194] Mordechai Abir, *Saudi Arabia: Society, Government and the Gulf Crisis* (New York: Routledge, 1993), 147-148
[195] Mohamed A. Ramady, *The Saudi Arabian Economy: Policies, Achievements, and Challenges* (New York: Springer, 2010), 45
[196] Calculation based on the exchange rate of Saudi Riyal to Dollar. In 1981, the exchange rate of 1 Saudi Riyal equaled to 3.38 USD; in 1988, 1 Saudi Riyal equaled to 3.75 USD. Data and information obtained from "Saudi Arabia: Government spending, in dollars," *The Global Economy.com*, accessed June 11, 2016, http://www.theglobaleconomy.com/Saudi-Arabia/government_spending_dollars/ , and "Saudi Arabia: Dollar exchange rate" *The Global Economy.com*, accessed June 11, 2016, http://www.theglobaleconomy.com/Saudi-Arabia/Dollar_exchange_rate/.
[197] F. Gregory Gause III, "Oil and Political Mobilization in Saudi Arabia," in *Saudi Arabia in Transition: Insights on Social, Political, Economic and Religious Change*, ed Bernard Haykel, Thomas Hegghammer, Stephane Lacroix (New York: Cambridge University Press, 2015), 25
[198] Ibid.
[199] Ibid.

IV. Political instability: not an inevitable result

With the strong fiscal reserves on hand and a sound financial structure, the Saudi government did not have to drastically cut the government spending or to increase international borrowing as in the previous three cases. It could maintain a deficit budget for years by drawing on its reserves which helped the country sustain a solid social foundation by a continuous provision of welfare and hence political stability.[200] Despite the drop in GDP, there was no shortage of imports, no surge in unemployment rates, no growing food crisis, and hence no appearance of significant social unrest as experienced by the other three petro-states. The entire Saudi population could survive the economic downturn after the slump of oil price without suffering from serious financial austerity.[201] All in all, the oil price recession did not constitute a challenge to the Kingdom's economic or political stability.[202]

For years, the Saudi government was aware of the importance of economic diversification and gave it top priority in the long-term policy goals. In reality, given the massive availability of crude oil and oil revenues to fund Saudi's government policies without seeking external resources, the Saudi government did not see any pressing need to introduce significant economic reforms. The Kingdom only resorted to limited expenditure cuts in infrastructure development, such as abandoning new plans for building oil refinery plants and international airports, to save money.[203] It did not seriously revamp its economy to alleviate its dependence on oil. However, strong fiscal reserves again could help the Kingdom to withstand crises in the oil price despite its continuous over-reliance on oil.

[200] Mordechai Abir, *Saudi Arabia: Society, Government and the Gulf Crisis* (New York: Routledge, 1993), 147.
[201] Ibid, 147-148
[202] Ibid.
[203] Alexei Mikhailovich Vasiliev, *The History of Saudi Arabia* (London: Saqi Books, 1998), 543.

Indonesia

In what follows, we will present the case of Indonesia to show how a country once heavily depended on oil revenues could survive the 1985 price shock and shift away from the development trajectory of oil dependence. Compared to the enormous foreign exchange reserves of US$200 billion possessed by Saudi Arabia in 1981,[204] foreign reserves held by Indonesia was slightly more than US$26 billion.[205] Despite relatively small reserve, Indonesia did not experience an economic crisis or political instability after the 1985 oil bust. It was not sheer luck but timely and effective economy reform that spared the country economic crisis and political turmoil in the wake of the oil price crash.

I. Oil revenues: the lifeblood of Indonesia

As a petro-state, Indonesia heavily relied on oil exports for economic survival. It saw growing expansion in the oil export industry from the 1970s to the early 1980s. In 1970, exports of crude oil, gas and related products only accounted for 33% of Indonesia's total exports.[206] Oil exports doubled and reached 70% in 1974 and 80% in 1979.[207] From the pre-oil boom year of 1970 to 1981, Indonesia's GDP (billions of U.S. dollars) increased almost tenfold, from US$9.66 billion to US$92.47 billion.[208] Oil and gas revenues, taxes from oil companies and import duties accounted for over two-third of total revenue for the Indonesian government. Oil income became the main pillar in support of the country's economy.[209] Windfall profits from the oil boom led the government to overlook the role of foreign investment; hence it focused on inward-looking

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204 "Saudi Arabia: Reserves," The Global Economy.com, accessed June 19, 2016, http://www.theglobaleconomy.com/Saudi-Arabia/Reserves/.

205 "Indonesia: Reserves," The Global Economy.com, accessed June 19, 2016, http://www.theglobaleconomy.com/Indonesia/Reserves/.

206 "What does Indonesia export? (1970)," The Observatory of Economic Complexity, accessed June 12, 2016, http://atlas.media.mit.edu/en/visualize/tree_map/sitc/export/idn/all/show/1970/.

207 Shinji Asanuma, "Natural Resource Abundance and Economic Development: A Curse? Or A Blessing? Lessons from Indonesia's Experience," accessed June 13, 2016 http://policydialogue.org/files/events/Asanuma_nat_resource_abundance_and_economic_dev.pdf.

208 "Indonesia: GDP, current U.S. dollars," The Global Economy.com, accessed June 19, 2016, http://www.theglobaleconomy.com/Indonesia/GDP_current_USD/.

209 Shinji Asanuma, "Natural Resource Abundance and Economic Development: A Curse? Or A Blessing? Lessons from Indonesia's Experience," accessed June 13, 2016 http://policydialogue.org/files/events/Asanuma_nat_resource_abundance_and_economic_dev.pdf.

policies[210] to build the economy mainly in a few basic sectors: infrastructure, basic industries, agriculture and education.[211]

Despite the heavy blow of oil price crash to petro-states in general, Indonesia did not follow in the footsteps of the Soviet Union, Venezuela and Algeria by introducing austerity measures or building up international debt to rescue a faltering economy. In contrast, it survived well and was able to maintain economic stability. The country saw a remarkable growth in GDP at an average rate of 6.73%.[212] In 1991, the country's GDP growth rate even reached 8.93%,[213] which was more than double the growth of 1985. Economic stability came with political stability. Indonesia did not experience considerable social turmoil and dramatic political changes as in at least three other petro-states.

II. Intense Economic reform

The dominant factor that contributed to the stable economic growth of Indonesia was in its export policy beginning to depart from an over-reliance on oil. The Government was determined to insulate the country from the volatility of oil prices by embracing economic diversification.

Indonesia has gone through a sea change in economic structure and started to embrace an export-oriented policy since the 1980s.[214] Way before the 1985 oil price crash, there was another oil price dip in 1982 arising from the sluggish global oil demand. Fall in state revenues served as a wake-up call for Indonesia government to diversify its economy after suffering currency devaluation. The years of 1985 and 1987 marked a new chapter of economic diversification in Indonesia which began to lift protections on domestic industries, launch a host of new regulations to support investment, open the door to welcome foreign investment, improve trade facilitation and reduce bureaucratic inefficiencies. All in all the array of policies was able to unlock immense business opportunities in Indonesia's non-oil sectors.

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210 Fauziah Zen, "Economic Diversification: The Case of Indonesia," Revenue Watch Institute, accessed July 21, 2016, http://www.resourcegovernance.org/sites/default/files/RWI_Econ_Diversification_Indonesia.pdf.
211 Ibid.
212 "Indonesia: Economic Growth," *The Global Economy.com*, accessed June 12, 2016, http://www.theglobaleconomy.com/Indonesia/Economic_growth/.
213 Ibid,
214 Fauziah Zen, "Economic Diversification: The Case of Indonesia," Revenue Watch Institute, accessed July 21, 2016, http://www.resourcegovernance.org/sites/default/files/RWI_Econ_Diversification_Indonesia.pdf

Significant policies included deregulation packages for industries like the automotive, machinery and electrical equipment, mining, agriculture and health. The government also discounted import duties for selected commodities, including textiles and steel. The country even created Bonded Zone through Government Regulation No. 22 in 1986 to encourage non-oil exports by giving tax and duty waivers to companies operating inside the zone.[215]

The proactive relaxation of export-oriented policies also contributed greatly to higher diversification in manufacturing sectors. Concurrently, the manufacturing industry boom was promoted by the relocation of high-cost factories in Japan to Indonesia after 1985.[216] Indonesia became one of the platforms for a footloose manufacturing industry.[217] With a boom in textile and shoe factories, Indonesia's economy successfully diversified away from its oil dependence and continued to grow at a healthy clip of about 6% annually.[218]

As a result, the oil export sector was no longer the growth engine to drive the country's economic development as it was in the 1970s. Exports of crude oil, gas and related products decreased from their peak of 80% in 1979 to 65% in 1985 and further down to 33% in 1991.[219] In 2004, Indonesia's position shifted from being a net oil exporter to a net oil importer due to the rise in domestic energy consumption.[220]

III. Crackdown of state-owned oil conglomerate

Another contributing factor that accelerated the economic diversification in Indonesia hinged on the state-owned oil conglomerate - Pertamina. During the oil boom, Pertamina was so gigantic that even the Indonesian government lost its grip on this mega kingdom. It was dubbed "a state within

[215] Ibid.
[216] Ibid.
[217] Muhammad Chatib Basri, "Lessening Pressure on Trade Protectionism by Diversifying Exports: Indonesia," Brookings, accessed July 19, 2016, http://www.brookings.edu/~/media/Research/Files/Reports/2010/11/09-g20-summit/g20_basri.PDF.
[218] Karl Schoenberger, "Two Faces of Indonesia : Skyscrapers and Squalor, Free-Market Capitalism and Sanctioned Monopoly Exist Side by Side," *Los Angeles Times*, June 1, 1992, accessed July 21, 2016, http://articles.latimes.com/1992-06-01/business/fi-497_1_indonesia-today.
[219] "What does Indonesia export? (1985)," The Observatory of Economic Complexity, accessed June 12, 2016, http://atlas.media.mit.edu/en/visualize/tree_map/sitc/export/idn/all/show/1985/.
"What does Indonesia export? (1991)," The Observatory of Economic Complexity, accessed June 12, 2016, http://atlas.media.mit.edu/en/visualize/tree_map/sitc/export/idn/all/show/1991/.
[220] Fauziah Zen, "Economic Diversification: The Case of Indonesia," Revenue Watch Institute, accessed July 21, 2016, http://www.resourcegovernance.org/sites/default/files/RWI_Econ_Diversification_Indonesia.pdf.

a state". Pertamina enjoyed an expansion from oil exporter to other businesses activities, such as steel manufacturing.[221] The vested interests owned by Pertamina became a stumbling block to the government in rolling out economic reform.

The over-expansion of Pertamina accumulated huge international debt. As debt snowballed, Pertamina failed to repay its cumulative debt of US$10.5 billion in 1975, equivalent to almost 30% of the country's GDP.[222] The corporate crisis of Pertamina provided a window for the then President Suharto to exert power on Pertamina and regain lost ground by reclaiming total control in this state-owned conglomerate.[223] The subsequent reform of Pertamina led by the government gave the opportunity for the state to weed out the parties with vested interests and to launch its overall economic reform across the country in the mid-1980s.

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[221] Shinji Asanuma, "Natural Resource Abundance and Economic Development: A Curse? Or A Blessing? Lessons from Indonesia's Experience," accessed June 13, 2016.
http://policydialogue.org/files/events/Asanuma_nat_resource_abundance_and_economic_dev.pdf.

[222] "World Bank Cambodia Oil & Gas special supplement : Avoiding the resource curse," The World Bank, published May 1,
2007 http://www.ds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/05/10/000310607_20070510154457/Rendered/PDF/397340ENGLISH0KH0Oil1and1Gas0301PUBLIC1.pdf.

[223] Shinji Asanuma, "Natural Resource Abundance and Economic Development: A Curse? Or A Blessing? Lessons from Indonesia's Experience," accessed June 13, 2016
http://policydialogue.org/files/events/Asanuma_nat_resource_abundance_and_economic_dev.pdf.

Conclusion of Case Study

The case study of the five petro-states have affirmed our theory: an oil price crash leads to economic demise and political downfall if the states are not processed of two essential elements: fiscal reserves strength and successful economic diversification.

In the cases of the Soviet Union, Algeria and Venezuela, the common ailment was that they all seemingly experienced sudden large plunge in GPD after the oil price crash beginning in November 1985. They fell from peak to trough, being the richest or the most powerful country in the region before sliding to the bottom of the pile as the worst economy in their respective region after the price crash. With that came government budget deficiency, fiscal reserves depletion, budget cuts, welfare reduction, followed by considerable social and political turmoil within the seven years framework of the study.

The three petro-states had a common perceived obligation to use oil money to placate and curry favour with their population and supporters in the good old days. Examples include the Soviet Union subsidizing the imports and food supply of their own citizens, Venezuela subsidizing transportation and Algeria for food imports. Excessive state subsidies in various formats for the petro-states to stabilize the society put them in a precarious position and they had to continue relying on oil revenues.[224] Once these governments were committed to vast societal obligations, they could not easily rescind them without exposing themselves to the risk of exasperating the public. They were caught in a quandary between providing more aid to stabilize their societies or adopting austerity policies. To fuel their burgeoning budget deficits, they counted on ballooning domestic and international debts which eventually led to irreversible debt crises.

The three nations ended up spiraling into economic demise with fiscal reserves quickly dissipated. Their power to maintain stability receded when oil prices dropped. Increasing food and daily necessities shortages coupled with inflation became the last straw threatening the daily life of the population. Widespread economic calamity finally pushed the regimes to the brink of collapse. All sorts of social unrest erupted including riots, civil wars, coups and, in the case of the Soviet Union, total regime change. Political instability was the inevitable consequence in the course of seven years.

[224] Anita Demkiv, "Political Instability in petrostates: the myth of reality of oil revenues as petrostate stabilizer" (PhD diss., The State University of New Jersey, 2012). 20

Yet, not all the petro-states suffered from the same demise. Our case study of Saudi Arabia and Indonesia showed otherwise. These two countries emerged relatively unscathed amidst the 1985 price drop. The conclusion reinforced our analysis: the existence of strong fiscal reserves and successful economic diversification bar a petro-state from falling into turmoil in times of oil price collapse. Saudi Arabia amassed US$200 billion in foreign exchange reserves which allowed the Kingdom to maintain deficit spending and extensive social spending to protect the people from economic hardship. It had the financial leeway to spend significantly on domestic welfare to quell critics. Indonesia proactively diversified its economy from the 1980s by unlocking immense business opportunities in non-oil sectors. It enjoyed continued growth in GDP regardless of 1985 oil price crash.

While in the case of the Soviet Union, Venezuela and Algeria, they did not accumulate fiscal reserves as strong as Saudi Arabia's. When the tide of oil income turned, they did not have the financial strength to withstand the price volatility impact. Again, it was hard for these three petro-states to diversify their economies when they once swam in oil. The entrenched vested interests of petro-state bureaucrats and resistance from the ruling class made each country difficult to transition away from oil dependence and stifled diverse economic development.[225] Regardless of their attempts to reform, they ended up as failures. Their ineptitude to diversify their oil-dominant economies in a timely and effective manner led to their economic as well as political demise.

[225] Anita Demkiv, "Political Instability in petrostates: the myth of reality of oil revenues as petrostate stabilizer" (PhD diss., The State University of New Jersey, 2012). 42

2014 oil price crash: back to the future?

History is repeating itself. Petro-states of today are facing stunningly similar situations by and large reminiscent of the gloomy and doomed days from 1985 to 1992. In what follows, we will apply our theory to analyze the situation of today.

Before the oil price crash beginning from the June 2014, the five petro-states in our study enjoyed abundant income, benefitting from rising oil revenue which flowed from 2005 to early 2014. Easily accessible petro-dollars enriched petro-states immensely and gave them plenty of room to sustain economic development as well as massive social spending. In return, petro-states enjoyed the fruits of economic prosperity and experienced relative stability. Unfortunately the growth trajectory of these countries made a drastic "U-turn" as the oil price collapsed and oil revenue dried up. The sudden event of the oil price crash punched a large hole in the pockets of the petro-states. It is reasonable to wonder whether the recent price crash will also make their economies go bust, topple their heads of state or even break up the entire petro-state.

In what follows we will provide some thoughts for tomorrow. We will analyze through the prism of the theory of this paper and assess whether the 2014 oil price crash and the continuous low oil prices will engender some kind of economic demise in the five petro-states and push them even to the brink of political turmoil. The paper will conduct a comprehensive analysis of each petro-state to identify whether its fiscal reserve strength and economic diversification status can help each of them survive the price shock and ensure they remain intact for years to come. The events of today may be a grim reminder of the hard knocks the petro-states suffered thirty years ago.

Venezuela today: at the brink of collapse

When we apply the theory to analyze today's Venezuela, the country is doomed to be repeating the history. In many ways it bears cunning similarity with 1985 oil price crash. Venezuela fails in learning the lessons to diversify its economy and relies too much on oil revenues. The country is now suffering the worst economic crisis in its history. Austerity policies have exasperated the public that comes with looming political turmoil.

Economic malaise in sight

Instead of diversifying its economy away from oil, Venezuela becomes even more dependent on oil revenues today. Oil revenues account for about 95% of the country's total export earnings (higher than 80% average in the 1980s),[226] 60% of the government revenues[227] and 25% of GDP. When oil prices drop, the impact on its government revenues is catastrophic - every US$1 drop in oil price costs US$700 million in Venezuelan government revenues.[228] As 70% of consumer goods including food come from imports,[229] Venezuela has to earn foreign currency by selling oil in international markets in exchange for imports. To balance the fiscal budget, Venezuelan government needs oil price to rebound to US$125 per barrel,[230] which is a remote distance.

All sorts of economic problems have emerged when oil price crashed starting from June 2014.[231] Venezuela has the world's worst negative growth rate of -8%.[232] Its foreign currency reserves have

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[226] Michael McCarthy, "6 things you need to know about Venezuela's political and economic crisis," *The Washington Post*, May 18, 2016, accessed July 3, 2016, https://www.washingtonpost.com/news/monkey-cage/wp/2016/05/18/6-things-you-need-to-know-about-venezuelas-political-and-economic-crisis/.

[227] Francisco Monaldi, "The Impact of the Decline in Oil Prices on the Economics, Politics and Oil Industry of Venezuela," *Centre on Global Energy Policy*, *Columbia Univer*sity, accessed June 28, 2016, http://energypolicy.columbia.edu/sites/default/files/energy/Impact%20of%20the%20Decline%20in%20Oil%20Prices%20on%20Venezuela_September%202015.pdf.

[228] Ian Bremmer, "These 5 Facts Explain Why Venezuela is in Big Trouble – Still," *TIME*, December 11, 2015, accessed July 13, 2016, http://time.com/4144648/these-5-facts-explain-why-venezuela-is-in-big-trouble-still/.

[229] Harold Trinkunas, "Running Out of Time: Dimming Prospects for Reform in Venezuela," *Brookings*, January 28 2015, accessed July 3, 2016, http://www.brookings.edu/research/articles/2015/01/28-economic-reform-venezuela-trinkunas.

[230] Ian Bremmer, "These 5 Facts Explain Why Venezuela is in Big Trouble – Still," *TIME*, December 11, 2015, accessed July 13, 2016, http://time.com/4144648/these-5-facts-explain-why-venezuela-is-in-big-trouble-still/.

[231] "Venezuela: a nation in a state," *The Economist*, February 18, 2016, accessed July 14, 2016, http://www.economist.com/blogs/graphicdetail/2016/02/graphics-political-and-economic-guide-venezuela.

[232] Julian Borger, "Venezuela's worsening economic crisis, the Guardian briefing" Guardian, June 22 2016, accessed July 18 2016, https://www.theguardian.com/world/2016/jun/22/venezuela-economic-crisis-guardian-briefing.

dropped more than threefold from the peak of US$43.07 billion in 2008 to US$13.2 billion in April 2016, the lowest since 2003.[233] Its foreign debt has risen to a strikingly high level of US$120 billion.[234] The country's employment markets, supported by Venezuelan government's extensive investment in public sectors,[235] have slashed jobs after the government drastically cut the expenditure. Unemployment rate is expected to climb from 6.7% in 2014[236] to 17% in 2016 and 21% in 2017.[237] President Nicolás Maduro Moros responded to the hole in public finances by printing more and fueling hyperinflation.[238] It is estimated that inflation has risen from 68.5% in 2014[239] to 180.9% in 2015[240], 720% in 2016[241] and to a whopping 1,642% in 2017[242], the highest on earth.[243]

Austerity measures triggering social unrest

In response to the severe economic crisis, Venezuelan government has declared a state of emergency[244] and implemented extreme austerity measures. It cuts welfare expenditures,

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[233] Christine Jenkins and Noris Soto, "What Can Venezuela Sell to Pay Bondholders? No One Really Knows," *Bloomberg*, April 5, 2016, accessed June 28, 2016, http://www.bloomberg.com/news/articles/2016-04-05/what-can-venezuela-sell-to-pay-bondholders-no-one-really-knows.
[234] Carolyn Cui and Sara Schaefer Munoz, "In Decaying Venezuela, Debts Get Rapid," *Wall Street Journal*, February 24, 2016, accessed June 28, 2016, http://www.wsj.com/articles/in-decaying-venezuela-debts-get-repaid-1456358943.
[235] "Venezuela Employment Rate Drop, Nearing Historic Low," *teleSUR*, December 1, 2015, accessed July 3, 2016, http://www.telesurtv.net/english/news/Venezuela-Unemployment-Rate-Drops-Nearing-Historic-Low-20151201-0038.html.
[236] Ibid.
[237] Patrick Gillespie, "Venezuela: the land of 500% inflation," *CNN*, April 12, 2016, accessed July 1, 2016, http://money.cnn.com/2016/04/12/news/economy/venezuela-imf-economy/.
[238] Julian Borger, "Venezuela's worsening economic crisis, the Guardian briefing" Guardian, June 22 2016, accessed July 18 2016, https://www.theguardian.com/world/2016/jun/22/venezuela-economic-crisis-guardian-briefing.
[239] David Biller, "IMF Sees Venezuela Inflation Rocketing to 720 Percent in 2016," *Bloomberg News*, January 22, 2016, accessed June 30, 2016, http://www.bloomberg.com/news/articles/2016-01-22/imf-sees-venezuela-inflation-rocketing-to-720-percent-in-2016.
[240] Everett Rosenfeld, "Venezuela is making 'surreal, suicidal' debt payments," *CNBC*, February 29, 2016, accessed June 30, 2016, http://www.cnbc.com/2016/02/29/venezuela-is-making-surreal-suicidal-debt-payments.html.
[241] Mark P. Sullivan, "Venezuela: Background and US Relations," Congressional Research Service, paper published on June 20, 2016, accessed June 28 2016. https://www.fas.org/sgp/crs/row/R43239.pdf.
[242] Patrick Gillespie, "Venezuela: the land of 500% inflation," *CNN*, April 12, 2016, accessed July 1, 2016, http://money.cnn.com/2016/04/12/news/economy/venezuela-imf-economy/.
[243] Franciso Monaldi, "The Impact of the Decline in Oil Prices on the Economics, Politics and Oil Industry of Venezuela," Centre on Global Energy Policy, Columbia University, accessed June 28, 2016, http://energypolicy.columbia.edu/sites/default/files/energy/Impact%20of%20the%20Decline%20in%20Oil%20Prices%20on%20Venezuela_September%202015.pdf.
[244] Julian Borger, "Venezuela's worsening economic crisis, the Guardian briefing" Guardian, June 22 2016, accessed July 18 2016, https://www.theguardian.com/world/2016/jun/22/venezuela-economic-crisis-guardian-briefing.

introduces basic foodstuff ration and withholds imports of food and medical products.[245] Food is transported under armed guard.[246] It enforces draconian price control to curb inflation that leads to widespread shortage of basic necessity.[247] Three-quarter empty supermarkets are being ransacked by hungry, angry mob.[248] To prop up the ailing economy, it runs through the dwindling gold reserves to service the debt and finance basic foodstuff. Nevertheless, with fast depleting gold reserves,[249] Maduro government will have to default or stop importing food soon, both are catastrophic.

If the Venezuela leaders were able to diversify its economy prior to the onset of oil price crisis, the results of today would have been a total difference. Nonetheless, during the Hugo Chávez's years, the government failed to grasp the opportunity to expand the non-oil industry but spent the oil rent on more welfare to appease voters.[250] The Venezuelan leftist government was so obsessed with state-led economic development and chose to expropriate private companies and farmlands for nationalization programmes, further deterring private investments[251] and discouraging private companies to explore non-oil businesses. Venezuela has failed to build a strong protective shield with a diversified economy and strong fiscal reserves against the oil price crash.

Possible political meltdown

Signs of political instability are in sight. Voters are fuming about Maduro government and showcase disenchantment with the current political system. Therefore the opposition party won a landslide victory in the Legislative Assembly election in December 2015. The general

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[245] Carolyn Cui and Sara Schaefer Munoz, "In Decaying Venezuela, Debts Get Rapid," *Wall Street Journal*, February 24, 2016, accessed June 28, 2016, http://www.wsj.com/articles/in-decaying-venezuela-debts-get-repaid-1456358943.

[246] Julian Borger, "Venezuela's worsening economic crisis, the Guardian briefing" Guardian, June 22 2016, accessed July 18 2016, https://www.theguardian.com/world/2016/jun/22/venezuela-economic-crisis-guardian-briefing.

[247] Carolyn Cui and Sara Schaefer Munoz, "In Decaying Venezuela, Debts Get Rapid," *Wall Street Journal*, February 24, 2016, accessed June 28, 2016, http://www.wsj.com/articles/in-decaying-venezuela-debts-get-repaid-1456358943.

[248] Julian Borger, "Venezuela's worsening economic crisis, the Guardian briefing" Guardian, June 22 2016, accessed July 18 2016, https://www.theguardian.com/world/2016/jun/22/venezuela-economic-crisis-guardian-briefing.

[249] Ibid.

[250] Francisco Monaldi, "The Impact of the Decline in Oil Prices on the Economics, Politics and Oil Industry of Venezuela," *Centre on Global Energy Policy*, *Columbia Univer*sity, accessed June 28, 2016, http://energypolicy.columbia.edu/sites/default/files/energy/Impact%20of%20the%20Decline%20in%20Oil%20Prices%20on%20Venezuela_September%202015.pdf

[251] Ibid.

members of public are actively calling for referendum to impeach President Maduro.[252] Reports of protests and looting saw a quadruple increase, with a record of over 2,100 protests from January to April 2016.[253] Though coup, civil war or change in the head of state has not happened yet, the incurable economic calamity has already triggered considerable social turmoil which may in the end bring about political instability in years to come.

252 Mark P. Sullivan, "Venezuela: Background and US Relations," Congressional Research Service, paper published on June 20, 2016, accessed June 28 2016. https://www.fas.org/sgp/crs/row/R43239.pdf.
253 Sibylla Brodzinsky, "We are like a bomb': food riots show Venezuela crisis has gone beyond politics," *The Guardian*, May 20, 2016, accessed July 14, 2016, https://www.theguardian.com/world/2016/may/20/venezuela-breaking-point-food-shortages-protests-maduro.

Russia & Algeria today

Today's situation in Russia and Algeria is much less severe than that in Venezuela. Though both Russia and Algeria become more dependent on oil revenue than in the 1985, they have accumulated much stronger fiscal reserves and set up stabilization funds in the same year to withstand oil price shocks and the ensuing economic crises. Russia has had an oil stabilization fund in place since 2004 to save its wealth for a rainy day. Algeria has risen to the number fifteen country in the list of the largest foreign exchange reserves in 2015 and established an oil savings fund entitled "Fonds de Regulation des Recettes (FRR)" in 2004. Nevertheless, political turmoil seems to be only a distant prospect as both countries have not undergone any severe social unrest. However, the revenue crunch and the worsening economic situation propelled by the recent fall of the oil price may one day force the two governments to seek stringent austerity measures whilst heavily drawing on reserve funds. If that day arrives, Russia may experience a certain level of economic and political instability.

Russia

Oil has been as critical to the new Russian state as it was to the former Soviet Union. Russia is in some ways even more oil-dependent than its predecessor. Today oil makes up 54% of the total export shares of Russian trade[254] and accounts for around 50% of government revenue. For every US$1 fall in the oil price, about US$1.4 billion is wide off Russian federal tax revenue.[255] The close correlation between oil price, value of the Ruble and the level of the stock market is striking and indicates that a massive fall in oil prices might well lead to a tumbling of the financial assets held by the Kremlin as their pattern of movement is so synchronized.[256]

[254] Torbjörn Becker, "Russia's economic troubles – a perfect storm of falling oil prices, sanctions and lack of reforms," Swedish Institute for Political Studies, published May 2015, accessed July 23, 2016, http://www.sieps.se/sites/default/files/2015_9epa%20eng%20A4%20korr3%20(2).pdf.
[255] "Price of Russian Oil Halves in First Half of 2015," The Moscow Times, July 1, 2015, accessed July 22, 2016, https://themoscowtimes.com/articles/price-of-russian-oil-halves-in-first-half-of-2015-47831.
[256] Torbjörn Becker, "Russia's economic troubles – a perfect storm of falling oil prices, sanctions and lack of reforms," Swedish Institute for Political Studies, published May 2015, accessed July 23, 2016, http://www.sieps.se/sites/default/files/2015_9epa%20eng%20A4%20korr3%20(2).pdf.

2014 oil price crash: pushing Russia's economy to the edge

In the wake of the 2014 oil price crash, a number of projections have already pointed to the possible decline of the Russian economy. Oil price fluctuations from June 2014 have resulted in significant revenue losses in Russia and a minus 3.7% GDP growth in 2015.[257] According to the Energy Research Institute of the Russian Academy of Sciences, even if oil prices rebound to US$80 per barrel, the economic growth of Russia will remain sluggish with a negative growth of around 0.5% to 1.5% in 2016 to 2017. The World Bank Report noted an estimated 10% drop in GDP in 2016.[258] The Russian economy could only achieve positive growth if the oil price were to rise above US$90 per barrel, which seems to be a forlorn hope.[259]

No doubt the Russian economy has already felt the pain of the 2014 oil price shock. The Finance Minister of Russia said the Kremlin Government will face a fiscal deficit if oil is priced below US$82 per barrel. Deutsche Bank AG estimated in January 2016 that the break-even price for 2015 was US$73.10 and US$66.10 in 2016, both higher than the oil price of today.[260]

Meanwhile, Russians saw their real wages decline by 9.5% compared to 2014.[261] The unemployment rate climbed to 5.58% in 2015 and is estimated to reach 6.5% in 2016.[262] The decline in real income has further aggravated the already-serious poverty problem. The poor population has increased by 3.1 million to 19.2 million in 2015, equivalent to 13.4% of the total population.[263] Continuous erosion of living standards and the social safety net will pose a serious threat to the legitimacy of the regime.

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[257] Himani Pant, "Russia's Economy in 2016", The Diplomat, May 11, 2016, accessed July 23, 2016, http://thediplomat.com/2016/05/russias-economy-in-2016/

[258] "Russia Economic Report (No. 35): A Long Journey to Recovery," The World Bank in the Russian Federation, The World Bank Group, published in April 2016, accessed July 23, 2016, http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2016/04/15/090224b08429dcfe/1_0/Rendered/PDF/Russia0rconomi00journey0to0recovery.pdf.

[259] Ekaterina Grushevenko, "The Effects of Lower Oil Prices on Russia," The National Bureau of Asian Research, May 14, 2015, accessed July 21, 2016, http://nbr.org/research/activity.aspx?id=561.

[260] Anna Andrianova, "Moody's Warns Russian Deficit Goal in Doubt as Oil Jolts Budget," Bloomberg, February 12, 2016, accessed July 22, 2016, http://www.bloomberg.com/news/articles/2016-02-12/moody-s-warns-russian-deficit-goal-in-doubt-as-oil-jolts-budget

[261] "Russians' Real Wages Fall 9.5% in 2015," The Moscow Times, January 25, 2016, accessed July 22, 2016,http://www.themoscowtimes.com/business/article/russians-real-wages-fall-95-in-2015/556842.html.

[262] "Russia: Unemployment rate from 2010 to 2020," Statista, accessed July 22, 2016, http://www.statista.com/statistics/263712/unemployment-in-russia/.

[263] "Russia Economic Report (No. 35): A Long Journey to Recovery," The World Bank in the Russian Federation, The World Bank Group, published in April 2016, accessed July 23, 2016, http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2016/04/15/090224b08429dcfe/1_0/Rendered/PDF/Russia0rconomi00journey0to0recovery.pdf.

Future of Soviet Union

The question remains however whether Russia will follow in the footsteps of the Soviet Union, with the economy finally going bust and people demanding fundamental changes to the political system. One thing is certain. Russia has taken heed of lessons learnt during the 1985 oil price clash and established the Stabilization Fund of the Russian Federation in 2004 to balance the budget and stabilize the economy in times of oil and natural gas price drops.[264]

This “rainy days” fund, which was also dubbed the “Oil Stabilization Fund”, was established in the challenging year of 2004 when oil hit a record low of US$27 per barrel. The aim of the fund was to provide a cushion against falling oil prices by converting crude oil export revenue, tax and investments into foreign government bonds. This corresponded to one-fourth or one-third of the overall oil revenue from 2004 to 2005. Money was then used to cover the government budget deficit should the oil price fall below the government budget breakeven price.[265] The fund saw a promising growth of US$3.73 billion to US$157.38 billion in the first four years.[266] It was later split into two sovereign wealth coffers: the Reserve Fund for oil stabilization (aka “Oil Stabilization Fund”) and the National Wealth Fund for pensions.[267]

Will the country stand or fall?

Whether oil price crashes will engender any economic crises in Russia is very much dependent on the resilience of the Oil Stabilization Fund. Stricken by oil’s collapse to the lowest price in more than twelve years, both the sovereign funds, held at the high level of US$87 billion at the start of 2014, quickly shrank by half in February 2016.[268] Russia’s 2015 budget drew on the Revenue Fund to the tune of US$53 billion in order to fund government programmes.[269] It is predicted that Russia will exhaust its Reserve Fund to cover the fiscal deficit by 2017 and start to draw upon the

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[264] Russian Federation: Selected Issues (IMF Country Report, No.06/430) (Washington D.C.: International Monetary Fund, 2006), 15
[265] Ibid.
[266] Torbjörn Becker, "Russia’s economic troubles – a perfect storm of falling oil prices, sanctions and lack of reforms,” Swedish Institute for Political Studies, published May 2015, accessed July 23, 2016, http://www.sieps.se/sites/default/files/2015_9epa%20eng%20A4%20korr3%20(2).pdf.
[267] “National Welfare Fund. Country: Russian Federation,” Sovereign Wealth Fund Institute, accessed July 22, 2016 http://www.swfinstitute.org/fund/russia.php
[268] Darya Korsunskaya, “EXCLUSIVE-Russia to exhaust Reserve Fund in 2017 - FinMin proposal” *Reuters*, July 5, 2016, accessed July 22, 2016, http://www.reuters.com/article/russia-budget-funds-idUSL8N19R233
[269] Paul Roderick Gregory, “Russia’s Economic Stagnation,” National Review, November 23, 2015, accessed July 22, 2016, http://www.nationalreview.com/article/427481/russias-economic-stagnation.

National Wealth Fund, which stood at US$73 billion in July 2016.[270] Nevertheless, redirecting the social security fund to plug the gap in the budget is risky in the long run. Henceforth, whether the Funds will be strong enough to funnel sufficient money for social spending and to prop up Russia's economy must be matters of conjecture. When an oil revenue crunch co-mingled with sanctions imposed by the West, Russia is quickly faced with forecasts of gloom and doom about its economic stability.

Another major factor is the possibility of diverting the economy away from oil exports. Immediately after the oil price plunge, the Kremlin government launched an anti-crisis plan by cutting government expenditure. As Nouriel Roubini rightly points out, Russia's economy fluctuated with the price of oil and gas. It needs to diversify itself with the privatization of state-owned enterprise, liberalization of the whole economy, a reduction in red tape and the number of trade barriers that hamper the creation of new businesses and the development of the domestic market.[271] However, there is no sign of any kind of holistic reform which might be able to keep the economy afloat without a heavy reliance on oil income.

Protracted economic pain without a determination to reform Russia's economic base will upset the long-standing bargain that President Vladimir Putin has with his people: prosperity in exchange for political passivity.[272] Although it is too early to tell whether political instability will take place in Russia in the near future, the risk is rising as more mass protests have erupted since Putin assumed his third term presidency in 2012.[273] If the oil price continues to remain at the low level it is today, Russia may have a bumpy road to endure on the way to maintaining political stability.

[270] Darya Korsunskaya, "EXCLUSIVE-Russia to exhaust Reserve Fund in 2017 - FinMin proposal" *Reuters*, July 5, 2016, accessed July 22, 2016, http://www.reuters.com/article/russia-budget-funds-idUSL8N19R233
[271] Anita Demkiv, "Political Instability in petrostates: the myth of reality of oil revenues as petrostate stabilizer" (PhD diss., The State University of New Jersey, 2012), 74.
[272] Michael Birnbaum, "Russia set for grim 2016 due to plunging oil prices," *Independent*, January 15, 2016, accessed July 22, 2016, http://www.independent.co.uk/news/world/europe/russia-set-for-grim-2016-due-to-plunging-oil-prices-a6814066.html.
[273] Anita Demkiv, "Political Instability in petrostates: the myth of reality of oil revenues as petrostate stabilizer" (PhD diss., The State University of New Jersey, 2012), 75.

Algeria

Just as in Russia, Algeria set up an oil stabilization fund in 2004 to create a shock absorber against oil price volatility. Although the economic structure of Algeria has not changed much since the crash in 1985, the strong reserve has enabled the country to fare much better in terms of economic performance and political stability in today's situation.

Oil remains the lifeblood of today's Algeria

After three decades, Algeria is still a centralized economy with predominant reliance on the oil and gas sector. Today, revenue from the oil and gas sector accounts for more than 95% of Algeria's total export earnings, around 60% of government income and 30% of the country's GDP.[274] Similar to Venezuela, Algeria has to import massive amount of goods, including foodstuffs due to its undiversified economy and under-developed non-oil sectors. High oil prices in the past decade have allowed the Algeria government to support calm restive populations and assuage social tensions by paying massive import bills, feeding its people, funding all sorts of social welfare and government programmes.

As Algeria's general economy and government funds are so intertwined with oil prices, when oil prices drop, the country encounters dramatic consequences. For every US$1 drop in oil price, Algerian will suffer a loss of US$560 million per year.[275] According to IMF, Algeria needs to sell oil at US$96.1 per barrel in order to balance its budget in 2015.[276] Ironically, such a figure is unlikely to be reached in the coming years when the current crude oil price is forecast to hover around US$40 to US$50 per barrel.

[274] "Algeria: Selected Issues (IMF Country Report No. 14/34)," International Monetary Fund, accessed June 11, 2016, https://www.imf.org/external/pubs/ft/scr/2014/cr1434.pdf.
[275] Abdelkader Cheref, "In Algeria, declining oil prices complicate the future," *The National*, December 28, 2014, accessed July 14, 2016, http://www.thenational.ae/opinion/comment/in-algeria-declining-oil-prices-complicate-the-future.
[276] Mark Fahey, "Oil prices and budegts: The OPEC countries most at risk", *CNBC*, December 3, 2015, accessed July 16, 2016, http://www.cnbc.com/2015/12/03/oil-prices-and-budgetsthe-opec-countries-most-at-risk.html.

Oil price crash straining Algeria's economy

Plunging oil prices since June 2014 have already strained Algeria's economy. The undiversified economy of Algeria is unable to offset the impact of the steep decline in oil revenue. Export revenue from the oil and gas sector has decreased more than 40%, from US$60.3 billion in 2014 to US$35.7 billion in 2015,[277] and will probably fall further to US$26 billion in 2016.[278] As the Algerian government has not prepared for a long period of price shock and lingering low prices, it has not implemented any fiscal consolidation programmes and has thus aggravated the country's budget deficits.[279] The budget deficit in 2015 nearly doubled in a year, widening from 6.2% in 2014 to 11.5% of GDP. Despite the implementation of tight monetary policy, inflation has increased more than 120%, rising from 3.9% in 2014 to 4.8% in 2015, and is expected to remain above 4% throughout 2016 and 2017.[280] The unemployment rate has increased from 10.6% in the third quarter of 2014 to 11.2% in the third quarter of 2015. Youth unemployment is the most serious, peaking at 29.9%.[281]

Future: political turmoil?

The 1985 oil price slump led to the outbreak of civil war in Algeria, resulting in an estimated 200,000 death toll. Nevertheless, it seems unlikely the current Algeria government will follow in the footsteps of its predecessor of the late 1980s. As with Russia, the negative financial impact brought by the price plunge has been alleviated by relatively strong fiscal reserves.

<u>Fiscal reserves and FRR: backing Algeria's government</u>

Same as Russia, oil price volatility prompted Algeria to set up the "Fonds de Regulation des Recettes" (FRR) in 2004. Substantial hydrocarbon proceeds were injected to the Fund to cushion

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[277] Lamine Chikhi, "Algeria to reduce imports by 15 pct as oil price drop bites," *Reuters,* March 16, 2016, accessed July 17, 2016, http://uk.reuters.com/article/algeria-economy-idUKL5N16O2OD.

[278] Intissar Fakir and Dalia Ghanem-Yazbeck, "Running Low: Algeria's Fiscal Challenges and Implications for Stability," The Carnegie Endowment for International Peace, updated February 11, 2016, accessed July 14, 2016, http://carnegieendowment.org/2016/02/11/running-low-algeria-s-fiscal-challenges-and-implications-for-stability-pub-62732

[279] "Algeria: Overview," The World Bank, last updated March 31, 2016, accessed July 15, 2016, http://www.worldbank.org/en/country/algeria/overview.

[280] "Algeria's Economic Outlook- Spring 2016," The World Bank, accessed July 15, 2016, http://www.worldbank.org/en/country/algeria/publication/economic-outlook-spring-2016.

[281] "Algeria's unemployment rate up by 11.2% in September 2015", *Algeria Press Service*, January 11, 2016, accessed July 16, 2016, http://www.aps.dz/en/society/10254-algeria%E2%80%99s-unemployment-rate-up-by-11-2-in-september-2015.

against revenue loss when the price was low. It was also perceived as an oil stabilization fund to provide support for government expenditure in a time of oil shocks. The Fund had accumulated a total of US$77.2 billion in June 2013.[282] Despite the budget deficit running since 2009, Algeria experienced less financial pressure and fewer economic reverberations because of its relatively stronger fiscal position than that held in 1985.

Moreover, the Algerian government could count on the FRR and foreign reserves to address domestic threats, ease social tensions and to maintain political stability.[283] The economy is in better shape than previously. The government has maintained surpluses of an average 7.7% of GDP between 1998 and 2008. [284] Despite the sluggish growth after the price crash, the GDP still grew a positive 3.8% in 2014 and 2.9% in 2015.[285] Stronger reserves also allowed Algeria to repay nearly all its external debt – lowering the debt from 60% of GDP in 2000 to less than 5% of GDP in 2014. [286]

Even during the outbreak of Arab Spring in 2011, Algeria's government was able to cope with massive riots and domestic shocks through heavy spending on social welfare, including the provision of housing vouchers, increasing the salary of public employees irrespective of performance[287] and offering zero-interest loans to unemployed young people.[288] Although the FRR declined by more than 30% between 2013 and 2015[289] and the reserves pool has been cut to a new low of US$145 billion in late 2015, thus seeing a 30% drop when compared to the peak of US$201 billion in December 2013, Algeria's foreign reserves remain the world's fifteen largest as

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[282] "Consolidation, not austerity: Prudent measures are being taken to help restrain government spending", Oxford Business Group, accessed July 8, 2016, http://www.oxfordbusinessgroup.com/analysis/consolidation-not-austerity-prudent-measures-are-being-taken-help-restrain-government-spending.
[283] Fabian Briegel, "Country Report Algeria," Rabobank, December 2, 2014, accessed June 11, 2016, https://economics.rabobank.com/publications/2014/november/country-report-algeria/.
[284] "Algeria: Selected Issues (IMF Country Report No. 14/342)," International Monetary Fund, accessed June 11, 2016, https://www.imf.org/external/pubs/ft/scr/2014/cr14342.pdf.
[285] "Algeria: Overview," The World Bank, last updated March 31, 2016, accessed July 15, 2016, http://www.worldbank.org/en/country/algeria/overview
[286] "Algeria: Selected Issues (IMF Country Report No. 14/342)," International Monetary Fund, accessed June 11, 2016, https://www.imf.org/external/pubs/ft/scr/2014/cr14342.pdf.
[287] Yahia H. Zoubir, "Algeria After the Arab Spring," *Foreign Affairs*, February 9, 2016, accessed July 14, 2016, https://www.foreignaffairs.com/articles/algeria/2016-02-09/algeria-after-arab-spring.
[288] Abdelkader Cheref, "In Algeria, declining oil prices complicate the future," *TheNational*, December 28, 2014, accessed July 15, 2016, http://www.thenational.ae/opinion/comment/in-algeria-declining-oil-prices-complicate-the-future.
[289] Gonzalo Escribano, "Algeria approves a budget right at the brink", Elcano Royal Institute, January 15, 2016, accessed July 14, 2016, in http://www.realinstitutoelcano.org/wps/portal/web/rielcano_en/contenido?WCM_GLOBAL_CONTEXT=/elcano/elcano_es/programas/energiacambioclimatico/publicaciones/ari3-2016-escribano-algeria-approves-a-budget-right-at-the-brink.

of 2015.[290] The existing pool will allow Algeria to sustain a deficit budget without extra borrowing in the next decade.[291]

It is also true to say that Algeria's government has not rested on its laurels and has rolled out certain austerity policies after the 2014 price cut. It has slowly and steadily reduced imports by 15% in 2016 with a view to decelerating the fast depletion of fiscal reserves.[292] To alleviate financial pressure, the government has also announced a cut in expenditures by 9% in 2016[293] by reducing certain subsidies, such as those for fuel, electricity and mobile phone subscription.[294] Small-scaled reforms are getting underway. For examples, the government has introduced tax measures to boost productive investment and streamlined protocols to foster an inviting business climate.[295]

Economic diversification is not in sight

The temptation of easy oil wealth will often lure short-sighted leaders into a dangerous position as they tend to embrace short-term economic policies and resist any drastic reforms for fear of the political cost. Large-scale structural economic reforms similar to the holistic reforms undertaken by the Indonesia government are not envisaged. Although the Prime Minister of Algeria has urged his country to reduce reliance on oil revenue, few practical steps have been taken to do so.[296]

To sum up, much stronger fiscal reserve enabled Algeria to cope with external and domestic shocks during the 2014 price slump and averted an economic crisis in the short-run. Though demonstrations took place, the painful memory of civil war and the "Black Decade" is still vivid in

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[290] "Total reserves (includes gold, current US$)," The World Bank accessed June 11, 2016, http://data.worldbank.org/indicator/FI.RES.TOTL.CD?end=2015&locations=DZ&start=1980.
[291] "Algeria: Selected Issues (IMF Country Report No. 14/342)," International Monetary Fund, accessed June 11, 2016, https://www.imf.org/external/pubs/ft/scr/2014/cr14342.pdf.
[292] Lamine Chikhi, "Algeria to reduce imports by 15 pct as oil price drop bites," *Reuters*, March 16, 2016, accessed July 17, 2016, http://uk.reuters.com/article/algeria-economy-idUKL5N16O2OD.
[293] "Algeria to cut spending by 9% over oil price slump," *Arab News* (originally published by *Reuters*), August 30, 2015, accessed July 15, 2016, http://www.arabnews.com/economy/news/798901
[294] Djamila Ould Khettab, "Without broader reforms, experts say Algeria's economy will continue to deteriorate amid the slump in global oil prices," *Al Jazeera*, May 11, 2016, accessed July 14, 2016, http://www.aljazeera.com/news/2016/05/algeria-economy-worst-160510121257728.html.
[295] "Steep fall in revenues in 2015 onliges Algeria to diversify economy", *Algeria Press Service*, December 29, 2015, accessed July 16, 2016, http://www.aps.dz/en/economy/10086-steep-fall-in-revenues-in-2015-obliges-algeria-to-diversify-economy.
[296] Instissar Fakir and Dalia Ghanem-Yazbeck, "Running Low: Algeria's Fiscal Challenges and Implications for Stability," *Carnegie*, February 11. 2016, accessed July 17, 2016, http://carnegie-mec.org/publications/?fa=62732

the minds of the public. The current sentiment has not yet reached a critical point to spark any nationwide protests. Nevertheless, if the economy continues to worsen with fiscal reserves depleted sufficiently quickly to threaten the living standards of Algerians, a public outcry may finally lead to political instability.

Saudi Arabia today

Whilst applying the theory to the Saudi Arabia of today, one will observe an interesting difference when compared with the situation of 1985. As one of the world's richest countries with an entrenched reliance on oil, Saudi Arabia has suffered badly in the 2014 oil price crash and the subsequent low prices. To surmount the extreme challenge, ironically, the Kingdom can no longer enjoy the benefits of strong fiscal reserves as it did in the old days. IMF has even issued a warning that the Kingdom could go bankrupt by 2020. The landslide slip in oil revenues has become a wake-up call for Saudi Arabia to embrace an economic diversification strategy. It remains to be seen if Saudi Arabia is doing enough to deal with the looming economic crisis and to avert any political backlash by means of economic reforms.

Oil, building block of the Kingdom

The grim prognosis for Saudi's economy is that it is almost completely dependent on oil. Despite the 1985 oil shock, the situation has not changed much in three decades. Oil and gas still account for about 86% of total exports[297] and contribute 50% of the Kingdom's GDP[298]. The oil price has ranged between US$20 and $50 a barrel since 2014 oil price crash and the Kingdom can hardly balance the budget when the price slips below US$100 per barrel.[299]

2014 oil price crash: testing Saudi's resilience to price volatility

Saudi Arabia is facing an immense financial pressure unseen in the late 1980s. Its fiscal reserves may not be large enough to withstand the economic assault if the trend continues unchecked. Although Saudi had a twenty-eight-fold growth in foreign exchange reserves, from US$26.5 billion in 1985 to US$748 billion in August 2014,[300] an extreme population explosion in the last

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[297] Include crude petroleum, refined petroleum and petroleum gas.
"What does Saudi Arabia export? (2014)," The Observatory of Economic Complexity, accessed May 26, 2016, http://atlas.media.mit.edu/en/visualize/tree_map/hs92/export/sau/all/show/2014/.
[298] "Saudi Arabia Facts and Figures," Organization of the Petroleum Exporting Countries, accessed May 26, 2016, http://www.opec.org/opec_web/en/about_us/169.htm.
[299] Tim Bowler, "Falling oil prices: Who are the winners and losers?" *BBC News, published January 19, 2015, accessed June 30, 2016, http://www.bbc.com/news/business-29643612.*
[300] "Saudi Arabia: Reserves (1985-2014)," The Global Economy.com, accessed June 19, 2016, http://www.theglobaleconomy.com/Saudi-Arabia/Reserves/.

four decades[301] has exerted tremendous pressure on its public finances. After the drop in oil revenue following the price crash, Riyadh's fiscal reserves dived from its peak at US$748 billion in August 2014, to US$593 billion in March 2016, with more than US$150 billion disappearing within a short period of time.[302] The Saudi government announced a budget shortfall of SR$367 billion in December 2015 (equivalent to US$98 billion and accounting for 15% of the Kingdom's GDP) and is projected to continue running a budget deficit of SR$326 billion (equivalent to US$87 billion) in 2016.[303] IMF warned that the Kingdom will run out of financial reserves and go bankrupt by 2020 if it continues its current spending pattern.

Increasing social unrest?

To combat a ballooning deficit, Saudi Arabia has launched a series of austerity budget plans. One of them is to cut jobs. For several decades, over two-thirds of its labor force has been absorbed by the bloated public sector.[304] Under the current unfavorable economic conditions, 10% of government jobs were cut between 2014 and 2015.[305] For example, Saudi Binladin Group, a state-owned construction firm, plans to cut 12,000 out of 17,000 positions taken up by Saudi citizens.[306] The Job market is shrinking fast in 2016 due to Saudi's government expenditure cuts. Meanwhile, the employment of Saudi citizens in the private sector has also dropped 38%.[307] Currently,

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[301] Population in Saudi Arabia increased from 6.8 million-person in 1973 to the current 27.7 million-person. Information obtained from
Anthony H. Cordesman, *Saudi Arabia Enters the Twenty-First Century: The Political, Foreign Policy, Economic and Energy Dimensions* (Westport: Praeger Publishers, 2004), 4
"The World Factbook," Central Intelligent Agency, updated April 20, 2016, accessed April 23, 2016, https://www.cia.gov/library/publications/the-world-factbook/geos/sa.html.
[302] Will Martin, "Saudi Arabia can't stop burning through its foreign cash," *Business Insider UK*, March 30, 2016, accessed May 24, 2016, http://uk.businessinsider.com/saudi-foreign-exchange-reserves-slide-to-lowest-levels-since-2012-2016-3
[303] Abduallah Al-Shihri and Aya Batrawy, "Saudi Arabia posts $98B deficit, raises petrol prices," *AP News*, published December 28, 2015, accessed May 24, 2016, http://bigstory.ap.org/article/c9b2976b762643ada6279fab0583290d/saudi-arabia-projects-87b-deficit-amid-low-oil-prices.
[304] Marwa Rashad and Katie Paul, "Saudi plans new labour scheme to cut unemployment," *Reuters*, May 3, 2016, accessed June 30, 2016, http://www.reuters.com/article/us-saudi-plan-labour-idUSKCN0XU1IK.
[305] Katie Paul, "Saudi job creation dries up as oil price slump hits broader economy," *Reuters*, March 9, 2016, accessed April 23, 2016, http://www.reuters.com/article/us-saudi-employment-idUSKCN0WB0LN.
[306] "Construction firm Saudi Binladin sheds 77,000 jobs," *Al Jazeera*, May 3, 2016, accessed May 27, 2016, http://www.aljazeera.com/news/2016/05/saudi-binladin-construction-firm-sheds-77000-jobs160502193035324.html
[307] "38% drop in private sector Saudi employment," *Arab news*, January 16, 2016, accessed May 27, 2016, http://www.arabnews.com/saudi-arabia/news/865861

around one-third of young people aged below 25 are unemployed. [308] This figure has yet to include an influx of another six millions of new young additions to the workforce by 2030.[309]

Austerity policies encompassed cuts in domestic subsidies and welfare, from water, energy and health to retirement pensions in early 2016. The Saudi government plans to increase the price of daily utilities. For example, the government will increase the prices of transport diesel by 79%, low-grade gasoline by 67% and industrial diesel by 55% in the next five years.[310] The move is expected to generate US$30 billion of state income by 2020.[311]

The Saudis populace is accustomed to one of the highest standards of living on earth. The implementation of new austerity plans will lead to growing public unrest. With a decline in social spending and a reduction in subsidies comes the risk of rising domestic turmoil, as highlighted by the Arab Spring in 2011, when high inflation, lower growth and inequality resulted in mass demonstrations across the Middle East.

Economic diversification:
"we *can live in 2020 without any dependence on oil*" [312]

To buck the trend of economic downfall, Riyadh is trying to re-bolster its economy by means of economic diversification, with the goal of reducing its oil dependence. The Saudi government announced "Vision 2030" - a blueprint to utilize oil revenue to achieve economic diversification, encourage private sector development and create jobs for millions of Saudi youths. According to Saudi Deputy Crown Prince Mohammed bin Salman, the Kingdom should break its addiction to

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[308] "The World Factbook," Central Intelligent Agency, updated April 20, 2016, accessed April 23, 2016, https://www.cia.gov/library/publications/the-world-factbook/geos/sa.html.
"Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estimate)," *The World Bank*, accessed April 23, 2016, http://data.worldbank.org/indicator/SL.UEM.1524.ZS.
[309]Adam Bouyamourn, "Saudi Arabia needs to invest $4 trillion in non-oil economy to meet job demand, McKinsey says," *TheNational*, December 10, 2015, accessed May 27, 2016, http://www.thenational.ae/business/economy/saudi-arabia-needs-to-invest-4-trillion-in-non-oil-economy-to-meet-jobs-demand-mckinsey-says
[310] Nayla Razzouk, "Saudi, Gulf Subsidy Cuts, Seen Damping Regional Oil Use in 2016," *Bloomberg*, January 19, 2016,July 14, 2016, http://www.bloomberg.com/news/articles/2016-01-19/saudi-gulf-subsidy-cuts-seen-damping-regional-oil-use-in-2016.
[311] Vivian Nereim, "Young Arabs Wedded to State Largess Pose Test for Gulf Leaders," *Bloomberg*, April 12, 2016 accessed July 17, 2016, http://www.bloomberg.com/news/articles/2016-04-12/young-arabs-wedded-to-state-largess-pose-test-for-gulf-leaders
[312] Keith Johnson, "Saudi Arabia Plans to Break Its 'Addiction' to Oil," *Foreign Policy*, April 25, 2016, July 13, 2016, http://foreignpolicy.com/2016/04/25/saudi-arabia-plans-to-break-its-addiction-to-oil-salman-vision-2030-aramco/

oil and “live in 2020 without any dependence on oil.”[313] The master plan paints a rosy picture with the establishment of a $2 trillion sovereign wealth fund to fund the reforms by disposing of the Kingdom’s petroleum assets, which is the first time this has happened in history. It is even considering listing shares in its enormous state-owned oil company, Saudi Aramco, in a bid to raise funds by 2018. [314] It is estimated that an IPO of Saudi Aramco could raise $106 billion to the sovereign wealth fund. The Saudi government has also declared a new set of targets, such as increasing non-oil exports from 16% to 50% of GDP and increasing non-oil revenue from SR$163.5 billion (US$43.6 billion) to SR$1 trillion (US$267 billion) by 2030. [315] State-owned assets and agencies will also be restructured. That said, the present reform is not a maiden move. The Saudi Government has tried to adopt economic changes, calling for a boost of non-oil sectors, in the past, mostly without success. As the soon as oil prices rebound, they sit back and relax.[316]

In conclusion, the current oil price collapse has not destabilized the Kingdom. The existing US$593 billion of fiscal reserves can still support the Kingdom’s operations for the next several years. Nevertheless, doom day will fall if the fiscal reserves are used up and social disruption increases when more austerity policies are rolled out. If the economic diversification programmes cannot be successfully implemented, it is questionable how long Saudi can prop up its faltering economy and maintain political stability if the oil price continues remaining so low.

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[313] Keith Johnson, “Saudi Arabia Plans to Break Its ‘Addiction’ to Oil,” *Foreign Policy*, April 25, 2016, July 13, 2016, http://foreignpolicy.com/2016/04/25/saudi-arabia-plans-to-break-its-addiction-to-oil-salman-vision-2030-aramco/.

[314] Stefania Bianchi, Neil Callanan and Matthew Martin, “Saudi Aramco Could Raise $106 Billion for the Wealth Fund,” *Bloomberg*, April 8, 2016, accessed July 16, 2016, http://www.bloomberg.com/news/articles/2016-04-07/saudi-aramco-share-sale-may-raise-106-billion-for-wealth-fund.

[315] “Saudi Arabia Vision 2030: Eight things you need to know about the reform plan,” *TheNational*, April 26, 2016, accessed July 16, 2016, http://www.thenational.ae/business/economy/saudi-arabia-vision-2030-eight-things-you-need-to-know-about-the-reform-plan

[316] “IMF Says Saudi Arabia Could Be Bankrupt By 2020,” *MintPress*, January 18, 2016, accessed July 22, 2016, http://www.mintpressnews.com/imf-says-saudi-arabia-could-be-bankrupt-by-2020/212830/.

Indonesia

Today, Indonesia is hailed as an eminent success in economic diversification. The World Bank has even lauded Indonesia as "*one of the most amazing examples of structural adjustment in the developing world, with important lessons for other Third World countries*".[317] Amongst the five countries in this study, Indonesia is the only case in point which has completely freed itself from oil dependence.

Exports of crude oil, gas and energy products, which once constituted 80% of total exports in the 1980s, have dropped to 16% in 2014. As mentioned in the earlier section, since 1980s the momentum to drive the country's growth has been steered away from oil to agricultural, manufacturing and diverse natural resources, to sources of wealth beyond oil.

In 2014, total exports of Indonesia reached US$197 billion, which made the country the world's 25th largest exporter.[318] Exports of footwear and clothing, high-tech products, automobile parts as well as agricultural products like coffee, tea, shrimp, fish, and spices have become the new growth engine. With the growing domestic oil demand to fuel its economic drive, Indonesia is no longer a petro-state. It turned itself into a net oil importer in 2014, with oil imports exceeding exports.[319]

The underlying cause of economic and political stability in petro-states thirty years ago was a sudden collapse in the price of oil coupled with an over-dependence on oil revenues. Indonesia will not join the ranks of Venezuela or other petro-states, which all generally decline when the oil price falls. It is the country that performs the best out of the five petro-states we have chosen, in terms of GDP growth and economic prosperity. An oil price crash no longer affects Indonesia's stability as severely as before because the country has freed itself from the oil price trap by means of economic diversification.

Conclusion

[317] Robert Weissman, "Rich Land, Poor People: The Economics of Indonesian Economic Development," *ECONOMICS* 11(10) (1990), accessed July 21, 2016 http://www.multinationalmonitor.org/hyper/issues/1990/10/weissman.html

[318] "Indonesia," The Observatory of Economic Complexity, accessed July 18, 2016, http://atlas.media.mit.edu/en/profile/country/idn/

[319] "Indonesia rejoining OPEC despite being a net importer of petroleum," U.S. Energy Information Administration, accessed July 21, 2016. http://www.eia.gov/todayinenergy/detail.cfm?id=23352

The oil price crash of 1985 engendered a serious economic setback and a political backlash to a broad swathe of petro-states. While low oil prices inflicted economic pain on and caused unprecedented political strains in certain petro-states, many government leaders failed to take heed of the previous crises and to prevent the countries from falling into the oil revenues trap. They still live in the illusion that generous oil revenues would save the day.

As the latest oil price crash began to unfold in the June 2014, petro-states like Russia, Saudi Arabia and Algeria have been suffering various degrees of economic backlash and looming political woes. Venezuela is almost at the verge of a complete state collapse. The only exception is Indonesia which has embarked on a different path, with a promisingly diversified economy. Volatility in oil prices and disheartening oil earnings no longer pose a serious threat to this country.

No doubt, it is hard for any oil state to foresee and turn around a trend of falling oil prices. Nevertheless, any country can avert a perilous future if its government is visionary enough to amass a substantial amount of wealth to defend against oil price slumps as well as to reform the economy in a timely and efficient manner to spare the state from economic calamity and political downfall.

Nevertheless, it is an extremely daunting task for a petro-state to make the transition away from oil dependence. A complete departure from oil export dominance will require the leadership to possess exceptional gumption in order to overcome internal conflicts and, in some cases, to counter the resistance from politicians and the ruling class with their entrenched vested interests.

However, there is no gain possible without the endurance of a certain amount of pain. History has already presented a prognosis of the future. If governments of the petro-states are reluctant to take drastic steps to free themselves from the oil revenue trap, history is bound to repeat itself. The notion is well represented in the cases of today: the days of Venezuela appear to be numbered Russia, Algeria and even the once secure oil kingdom of Saudi Arabia will gradually fall apart economically and politically when the once-solid reserves dwindle to an alarming level. Only substantial fiscal reserves and a successfully diverse economy can free these petro-states from the paradox of plenty.

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