I. Introduction

The fast-paced global economy of the post-Second World War era has led many countries to harness their natural capital at an unprecedented fast pace. Unfortunately, in many cases, the harnessed returns from natural resources have not been conducive to inclusive growth (Sachs and Warner 2011) which requires that growth equitably benefits society, within and across generations. Rather, the depletion of many types of natural resources has often mostly benefitted a handful of people from the extracting generations. This chapter discusses the main challenges faced by resource-rich nations in promoting equity, describes some of the policy tools available for managing exhaustible natural resources, and analyzes the relationship between resource wealth and state fragility.

Natural resource wealth often constitutes a large share of economic wealth, but contributes little to inclusive growth, especially in developing countries. In 2014, natural capital (including both exhaustible and non-exhaustible resources) accounted for about 50 percent of the total wealth of low-income countries. In the same year, it accounted for 3 percent of the total wealth of high-income OECD countries (World Bank 2018). Yet, over the period 1995–2014, natural capital only contributed to 10 percent of growth in low-income countries. In advanced economies, it contributed to 3 percent of growth during that period (World Bank 2018). The fact that advanced economies have been getting relatively higher returns from their resource wealth suggests that with appropriate policies, most resource-rich developing countries could grow faster than they currently do. The experience of Botswana supports this hypothesis.
Despite being plagued with persistent inequality, Botswana is one example of a developing and resource-rich country which has been successful at avoiding the vicious cycle of resource dependence and economic stagnation. Over the last three decades that preceded the 2008 financial crisis, Botswana remarkably grew by an average growth rate of 7.5 percent, with 40 percent of this growth being attributed to mining (Iimi 2007). According to Acemoglu et al. (2012), the factors behind this outstanding performance were: efforts to improve governance, commitment to strong fiscal discipline, and strong investment in education and public infrastructure, all of which were possible thanks to Botswana’s strong institutions which protect investors’ property rights, provide political stability, and ensure broad citizens’ participation in the policy making process. Between 1998 and 2007, Botswana invested on average 8 percent of GDP in education, well above the average of 3 percent seen in resource-rich countries over the same period. This chapter posits that if resource-rich societies manage to strengthen their institutions and implement sound policies, they could achieve the successful performance of Botswana, and with less inequality.

Harnessing natural resources comes with several challenges. These challenges include: the eminent exhaustibility of key natural resources; the risk that myopic governments favor the fast depletion of natural resources over a longer-term development strategy that would be conducive to a productive business climate; the risk that resource wealth fuels corruption and leaves the country trapped in a vicious cycle of poor governance and low growth; the risk of a decline in the competitiveness of non-resource based exports; and for hydrocarbon producers, the new constraints imposed by a carbon-conscious global economy. Overcoming the challenges imposed by natural resources comes with sizeable opportunities for developing countries, which in many cases are plagued with widespread poverty despite holding significant resource wealth.

In the case of fragile countries, resource wealth poses an additional challenge. Often, it serves to fuel conflict by providing a funding base for military spending that is given priority over basic social and physical infrastructure needs. For this reason, resource wealth often undermines the ability of countries to exit fragility. But fortunately, this paradoxical role of resource wealth can be avoided by committing to a transparent and sound management of the resource wealth.

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2 According to Hillbom and Bolt (2015), income inequality in Botswana peaked in the 1970s, at the time of the shift between the cattle economy established during the colonial era, and the diamond economy. Since then, inequality has been declining in Botswana, driven by targeted government transfers and growing incomes generated by fast and sustained growth. Albeit still very high, Botswana’s income Gini index fell from 0.61 to 0.53 between 2010 and 2015.

3 Acemoglu et al. (2012) argues that Botswana owes its strong institutions to the fact that British colonialism did not destroy its pre-colonial institutions which were relatively inclusive institutions, to strong political leadership since independence, and to the elite’s interests in reinforcing institutions.
Most of the challenges associated with harnessing resource wealth can indeed be overcome with an adequate policy framework. This requires: (1) adopting a resource wealth management framework that serves the joint interests of both current and future generations; (2) sustaining investment in human capital with earnest commitment to using resource wealth for educating masses; and (3) diversifying away from natural resources to curb resource dependence. As the experiences of Botswana and Norway discussed in this chapter suggest, strong institutions and sustained citizen participation in the policy-making process are of paramount importance in making governments accountable and ensuring the inclusive management of resource wealth. To understand how economic diversification could be achieved in resource-rich countries, this chapter further proposes lessons learned from the economic diversification experiences of Malaysia and Chile. For what follows, discussions are focused on exhaustible (non-renewable) natural resources.

II. The Challenges of Natural Resource Wealth

A. The Challenge of Measuring Resource Wealth

Quantifying natural resource wealth is a daunting task for two reasons: (1) existing estimates of the amounts of resources still in the ground are based on approximative methods with various degrees of confidence (Satter and Iqbal 2016); and (2) forecasting commodity prices has proved to be bound to large errors caused by the highly volatile nature of shocks to commodity prices (IMF 2015). Accounting for this uncertainty requires a resource wealth management framework which provides regular estimates of the value of the country’s resource reserves under different price and extraction scenarios (IMF 2015).

In practice, economists usually keep track of two measures when estimating resource wealth. These measures are the annual resource rents-to-GDP and the time left to depletion. Resource wealth is then estimated as the net present value of current and future natural resource rents over the time left to depletion, also known as exhaustion time (World Bank 2011). Following a methodology used by the World Bank, the exhaustion time is typically calculated as the ratio of reserves remaining at the end of a given year, to the production level recorded in that particular year. Because this approximation of the time to depletion does not account for the possibility of future discoveries, it provides only a basic and crude estimate for the exhaustibility of key natural resources. This is an imperfect, yet useful, starting point in assessing the urgency to transform from a resource-based economy to a more diversified economic structure.

The exhaustibility of major types of natural resources is a binding constraint. For many resource-rich countries, the exhaustion of proven reserves of key natural resources is in fact expected to happen in the foreseeable future, given current
production rates (Figure 19.1). For instance, in 2019, the world median expected number of years to depletion was 29 years for oil reserves, and 49 years for cobalt reserves. In other words, many countries dependent on either oil or cobalt could take less than one generation to become resource-poor.
B. The Challenge of Political Myopia

The abundance of natural resources has lured many countries into delaying efforts to promote a business climate favorable to growth in the non-resource sector. When governments are short-sighted because of political instability or a lack of government accountability, they are often unwilling to champion reforms to improve the business climate and support an expansion of non-resource-based sectors. This could explain in part why so many resource-rich developing countries continue to lag behind their resource-poor peers, both in terms of export diversification and export quality (Figure 19.2). Unfortunately, specialization in natural resources has also usually hindered macroeconomic stability in these countries.

Indeed, most commodity exporters have been at the mercy of fluctuations in global commodity prices. For instance, in resource-rich countries, government revenues over the last two decades have almost perfectly mirrored fluctuations in global commodity prices (Figure 19.4), reflecting heavy dependence on resource windfalls. Likewise, real exchange rates have also been driven by commodity price swings (Pouokam 2021), often to the detriment of competitiveness and the ability to develop export capacity in non-commodity traded goods. Such

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**Figure 19.2** Corruption and Competitiveness in Resource-Rich and Resource-Poor Countries

*Sources:* Author’s calculations using data from the World Development Indicators, World Economic Forum, and Transparency International databases.
economic volatility has contributed to further weakening growth and exacerbating inequality (Goderis and Malone 2011).

If not properly managed, natural resource wealth could fuel corruption and leave the country trapped in a quagmire of poor governance, resource dependence, and slow growth. The data indeed suggests a negative association between governance quality and resource abundance (Figure 19.3). \(^4\) Two mechanisms may explain this negative correlation. First, weak institutions and poor governance create opacity in public financial management and support corruption which polarizes the ownership of the resource capital, ultimately creating long-lasting vested interests for resource dependence. Second, natural resource rents fuel corruption and slow down institutional reforms, undermining the long-term growth potential. The abundance of natural resources therefore creates even higher stakes for reinforcing political accountability and committing to policy frameworks that would help ensure that corruption does not stand in the way of institutional reforms and long-term growth.

C. The Challenge of Falling Global Demand for Hydrocarbon Exports

Greater global awareness of the negative impact of fossil fuel energy consumption on the environment has created new challenges for carbon-rich countries. These challenges include the risk of a permanent fall in global carbon prices if global demand for these resources (essentially oil, gas, and coal) were to plummet in

\(^4\) The positive association between corruption and resource wealth is discussed in Veisi 2017.
response to increased carbon taxes (IMF 2019) while global supply were to surge, caused by hydrocarbon companies extracting faster in anticipation of higher future carbon taxes—the green paradox (World Bank 2018; Sinn 2008). In the process, speedy efforts to increase carbon production would also imply a misallocation of resources away from promising sectors for which returns on investment would be perceived as less immediate.

III. Resource Curse, Dutch Disease, and Exchange Rate Policies

A. The Resource Curse and the Dutch Disease

Resource wealth tends to be associated with slower economic growth. A large body of the economic literature has documented the negative association between resource dependence and per capita GDP growth, a phenomenon known as the “resource curse.” The seminal empirical study of Sachs and Warner (1995) establishes that countries starting with relatively higher ratios of natural resource-based exports to GDP in 1971 had relatively lower average growth rates over the subsequent period 1971–1989, including after controlling for initial per capita income, trade policy, government efficiency, investment rates, and other variables relevant for economic growth. Papyrakis and Gerlagh (2007) confirms this empirical finding for the United States, suggesting that US states with relatively large natural resource wealth endowments grew less over the period 1986–2000 than the rest of the country, because they not only had poorer growth-promoting outcomes in terms of investment, schooling, openness, and R&D expenditure, but also had more corruption. James and Aadland (2011) similarly finds a negative correlation between resource wealth and economic growth at the more disaggregated US county level, including for more recent periods.

If the existence of a negative relationship between resource wealth and growth is usually accepted as a given, there is much less consensus about the underlying reasons explaining such a relationship (see James 2015 for a detailed review). The mechanisms highlighted in the economic literature to explain the resource curse to a large extent echo the previous discussion of challenges associated with resource wealth. Explanations for the resource curse include that: (1) resource wealth tends to prolong anti-growth policies such as autarkic trade policies (Auty 1994); (2) resource wealth creates opportunities for rent-seeking behaviors which diverts entrepreneurial talent away from productive business enterprise (Torvik 2002); (3) resource wealth raises the stake for social conflict as factions of society compete to take control of the natural resource (Collier and Hoefffler 1998); (4) resource wealth creates a false sense of economic security, leading to underinvestment in human capital (Gylfason 2001); and (5) resource wealth crowds out other growth-promoting industries such as manufacturing, a phenomenon known as the Dutch disease (Matsuyama 1992; Sachs and Warner 1999).
The term “Dutch disease” refers to the decline in traditional industries that often follows commodity booms. The common explanation for the Dutch disease phenomenon is that commodity booms create a reallocation of resources toward the commodity sector which bids up wages, causing the non-resource tradable sector (typically manufacturing and agriculture) to become less competitive (Corden and Neary 1982). Usually, the real exchange rate appreciates as domestic demand for both tradable and non-tradable goods (typically services) increases, pushing non-tradable goods prices up while tradable goods prices remain fixed at international levels. The increase in the relative price of non-tradable-to-tradable goods in a context of booming commodity prices causes factors of production to move from the non-resource tradable sector to the non-tradable sector, which leads to an expansion in non-tradable services and a decline in tradable manufacturing and agriculture sectors (Ismail 2010). Evidence for the manifestation of the Dutch disease in the manufacturing sector in response to unanticipated changes in real commodity prices has been established at quarterly frequency for Canada (Charnavoki and Dolado 2014) and Australia (Dungey et al. 2014), and at an annual-frequency using cross-country data (Ismail 2010).

Theory and evidence suggest that exchange rate policies are not the most effective way to address the Dutch disease for which there seems to be no short-term cure. In fact, neither a fixed, nor a floating exchange rate regime provides complete insulation against the Dutch disease, which in the first case manifests through domestic inflation, and in the latter comes mainly through nominal exchange rate appreciation (Lama and Medina 2012). Also, neither the policy of real exchange rate stabilization, nor that of pegging the export price of a major commodity as suggested by Frankel (2003) provides a cost-free solution to the Dutch disease (Pouokam 2021). Stabilizing the real exchange rate in the context of booming commodity prices can provide welcome support to a dragging tradable non-resource sector, but at the cost of higher macroeconomic volatility (Lama and Medina 2012). This is because when policy intervention after a surge in commodity prices limits the appreciation of the real exchange rate to support the tradable non-resource sector, the role of the nominal exchange rate as a shock absorber is partially lost, and resources are inefficiently reallocated away from the booming commodity sector, despite welcome support provided to falling non-commodity exports. Similarly, a peg to the export price does not resolve the Dutch disease threat. For instance, with a peg to the export price, if the nominal exchange rate appreciates in response to a surge in the price of the commodity that the country specializes in, non-resource-based exports could become less competitive, and the standard Dutch disease symptoms could ensue. The key strategy to address the Dutch disease is instead to diversify the economy over time, so that Dutch

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5 The term “Dutch disease” was initially used to describe the decline in traditional industries in the Netherlands after the discovery and development of natural gas industries in the 1960s (see Pouokam 2021 for a discussion).
disease symptoms could be reduced as the economy becomes less dependent on natural resources. This is discussed later.

IV. Fiscal Policy Frameworks for Managing Resource Wealth

The fiscal policy framework should be tuned to ensure that the management of the resource wealth promotes an equitable sharing of the resource dividend across and within generations, limits the impact of fluctuations in commodity prices on the rest of the economy, and fully supports human capital accumulation and social cohesion. As examples, the Permanent Income Hypothesis (PIH) and the Bird-in-Hand (BIH) frameworks have often been used to institutionalize savings for future generations. This has usually been done in combination with fiscal rules that help to shelter the economy from the deleterious impact of large fluctuations in commodity prices.

A. Two Frameworks for Saving Resource Wealth: the PIH and BIH

The management of natural resource wealth to promote intergenerational equity can be achieved with fiscal frameworks designed to smooth the spending of natural resource windfalls over time. Two examples of such frameworks are the Permanent-Income Hypothesis (PIH) and the Bird-in-Hand (BIH) which specify how much of the resource rents should be spent (as measured by the non-resource primary deficit) and how much should be saved for future generations. The PIH framework restricts spending to the interest income generated by the net present value of current and future resource windfalls—the permanent income, while the BIH framework restricts spending to the interest gains on the natural resource investment fund itself. These frameworks are useful commitment devices for ensuring that the benefits of natural resource windfalls get spread out across generations. Both frameworks offer predictability and a clear understanding of the weight given to future generations in the allocation of resource wealth. However, to serve their purposes, they require unequivocal transparency. Full disclosure of all operations related to the management of savings funds for future generations is needed to help create the foundation for a check and balance system capable of bringing strong discipline to the management of natural resource wealth.

The PIH and BIH frameworks could be modified to accommodate developing countries’ needs for investment in human capital and public infrastructure. In fact, the PIH and BIH frameworks assume that the long-term rate of return on the savings fund intended for future generations exceeds the marginal social return on other assets. But in most developing countries, the marginal returns to investments in human capital and public infrastructure are still very high
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(Humphrey et al. 2007). The successful experiences of Botswana suggest a practical approach to accounting for these investment needs: institutionalizing a savings fund for future generations (the Pula Fund) to enforce the proper use of natural resource windfalls, while also prioritizing spending to favor human capital and public infrastructure investments.

In Botswana, the prioritization of development-promoting spending is institutionalized in the Sustainable Budget Index (SBI) rule which requires that mineral revenues finance “investment expenditure” exclusively (Iimi 2007). The rule defines investment expenditure as development expenditure and recurrent spending on education and health. The SBI rule works in tandem with the Pula Fund in which financial assets are invested on a long-term basis.

Iimi (2007) recognizes three institutional pillars supporting Botswana’s sound management of resource wealth: (1) in recognition of the need for government accountability, Botswana’s Ministry of Minerals, Energy and Water Resources is charged with responsibility for natural resource regulation and management; (2) the Directorate of Corruption and Economic Crime established in 1994 serves as an independent anticorruption authority, reporting corruption cases directly to the president; and (3) there is independence between the attorney general and the government, as established by the constitution.

B. Country Examples of PIH and BIH Frameworks

São Tomé and Príncipe and the PIH Framework
São Tomé and Príncipe was the first country in Africa to formally adopt the Permanent Income Hypothesis (PIH) framework. In December 2004, São Tomé and Príncipe promulgated the Oil Revenue Management Law for the management of oil revenues (Segura 2006). The law required the central bank to open the National Oil Account (NOA) with a custodian foreign bank, on behalf of the government, for the purpose of managing resource wealth. The NOA was to be divided into two subaccounts: the “Unrestricted Part of the National Oil Account” in which all oil revenues would be deposited, and a “Permanent Fund” for future generations, into which the remaining balance of the Unrestricted subaccount would be transferred once a year, after the annual single transfer to the budget. It was established that the resources deposited in the NOA would be managed by the Management and Investment Committee composed of five members, among them the Minister of Finance and the President of the central bank. The Petroleum Oversight Commission including representatives of the civil society was created to ensure permanent monitoring and auditing of all transactions related to oil revenues and resources. To protect the fund from political pressures that can lead to its depletion, a rule was established to limit withdrawals from the Permanent Fund in any single year to a maximum of 20 percent of the accumulated assets (IMF 2012).
São Tomé and Príncipe’s Oil Revenue Management Law stipulates that the amount of oil revenues to be saved in the Permanent Fund would be decided annually, based on a PIH framework aiming to support government spending, including after the exhaustion of oil resources. Namely, the law requires that every year, the amount of oil revenues transferred to fund the national budget does not exceed the lesser of:

1. the sum of (A) the long-term real rate of return multiplied by the balance of the Permanent Fund on June 30 of the previous year, and (B) the long-term real rate of return multiplied by the expected present value of future oil revenues on June 30 of the previous year; and

2. the sum of: (A) the long-term real rate of return multiplied by the balance of the Permanent Fund on June 30 of the previous year, and (B) the balance of the “Unrestricted” subaccount of the NOA—in which current oil revenues are deposited—on June 30 of the previous year (São Tomé and Principe 2004). This second term reflects a conservative approach which helps limit the downside risks from overly optimistic forecasts of future revenues in the calculation of the net present value.

For the purpose of oil revenue management, the long-term real rate of return used is the real rate of return expected on a portfolio composed of assets proportionate to the assets held in the Permanent Fund during the same period, and is capped at 5 percent.

Timor-Leste and the Modified Permanent Income Hypothesis Framework
Timor-Leste’s approach to oil wealth management under the Petroleum Fund law follows the PIH but with some flexibility. Specifically, the saving policy adopted makes it possible to spend more than the level of sustainable spending, but with authorization from Parliament (Kim et al. 2005). The level of sustainable spending is calculated every fiscal year, as the product of a long-term real rate of return of 3 percent on the one hand, and the sum of the current balance of the Petroleum Fund and the net present value of all current and expected future income flows from oil reserves on the other hand. Parliament could for instance authorize an increase in spending above the sustainable level to meet urgent needs for public infrastructure. Parliament could also require a level of spending below the sustainable level if warranted by limited absorption capacities.

The Modified Permanent Income Hypothesis (MPIH) Framework adopted by Timor-Leste can help accommodate a more front-loaded spending path than a traditional PIH framework. In principle, the flexibility of the spending rule allows financial assets to be drawn down for a few years during the scaling up of public investment projects, the goal being to later offset the impact on the oil savings
fund with fiscal adjustment (IMF 2012). If the scaling up of investment later leads to increasing non-resource revenues, the need for fiscal adjustment to compensate for the initial drawdown could be eliminated. The requirement to provide justification to parliament when the amount of spending planned is higher than the level indicated by a PIH helps to discipline the choice of investment projects that are undertaken as part of the national development strategy. For instance, to ensure that the public investment scaling up program produces the benefits expected under the MPIH, the government of Timor-Leste has created institutions that are responsible for project appraisal, procurement, and monitoring within the budget process (IMF 2012).

Timor-Leste’s flexible approach shows how the PIH could be modified to address development needs in a manner that is consistent with the well-being of both current and future generations. However, this approach does not fully offset the risk that the expected returns to the investment projects undertaken could fail to materialize. If the level of fiscal adjustment later needed to compensate future generations is gauged unsustainable by future governments due to a poor economic outlook, future generations could be permanently made worse off.

Norway and the BIH Framework

Norway is one of the largest oil and gas producers in the world, and a pioneer of the Bird-in-Hand approach with its sovereign wealth fund, the Government Pension Fund Global (GPFG). The GPFG was originally named the Government Petroleum Fund. It was established by the Government Petroleum Fund Act of 1990 which stipulated that its operational management was to be carried out by Norges Bank, under a management agreement with Norway’s Ministry of Finance which would exercise oversight, including setting guidelines for benchmark and risk limits (Backer 2009).

Since receiving its first transfer in 1996 (Government of Norway 2015), the GPFG has been one of the fastest-growing Sovereign Wealth Funds in the world. In October 2019, its value reached 10 trillion Kroner (US$1.15 trillion) (Norges Bank Investment Management 2020). This success has been attributed to a governance framework featuring a high degree of transparency in the management of the GPFG, to Norway’s commitment to its fiscal rule, and to a carefully chosen investment strategy (IMF 2008).

The Norwegian model of sovereign wealth fund management has been applauded as an exemplary model of transparent governance (IMF 2008). The GPFG’s institutional framework sets clear guidelines and expectations for the roles of the Ministry of Finance and Norges Bank. The Ministry of Finance reports regularly on the GPFG’s governance framework, its goals, its investment strategy and results, and its ethical guidelines. As the Fund’s operational manager, Norges Bank publishes quarterly and annual reports on the fund’s management. These reports include information on the fund’s performance and an annual
listing of all investments. Regularly, information is also made available on how the fund voted during shareholders’ meetings.

Norway’s fiscal rule has facilitated the integration of the Fund’s net allocation decision with fiscal policy (IMF 2008). The fiscal rule sets the limit on the central government’s non-oil structural deficit at around 4 percent of the assets of the GPFG. Because 4 percent is the estimated long-run real rate of return (Government of Norway 2015), the rule therefore amounts to saving the fund’s capital and spending only its return, as typical in a BIH approach. The integration of the GPFG’s saving and spending rule with the fiscal rule is one of the praised features of Norway’s approach to sovereign wealth fund management (IMF 2008). It provides a unified accountability framework for the government to the people of Norway regarding the use of petroleum revenues and the rentability of the GPFG.

The GPFG’s successful investment strategy builds on four pillars. First, the fund has a stake in sustainable global development because it targets long-term returns that are environmentally and socially responsible (Government of Norway 2020b). Second, the fund follows clear guidelines for risk limits (for instance, a minimum of 7.5 percent of the net asset value of the fund is to be held in treasury bonds issued by the governments of France, Germany, Japan, the United Kingdom, and the United States of America (Government of Norway 2020b). Third, the fund diversifies its investment portfolio by setting a limit to how much may be invested in a single company’s equity (Government of Norway 2020b). As of 2020, the GFPG holds equity in about 9,000 companies with headquarters in 74 countries (Government of Norway 2020a). Finally, to help protect the krone against large foreign exchange fluctuations generated by the petroleum industry, the fund invests exclusively abroad (Government of Norway 2020a).

C. Fiscal Rules for Dealing with Volatile Resource Revenue

Large fluctuations in commodity prices undermine the ability of resource-rich countries to leverage their resource wealth to sustain long periods of stability and prosperity. In the absence of countercyclical fiscal policy which builds buffers during commodity booms, fluctuations in commodity prices directly translate into fluctuations in natural resource revenues and spending. Studies have shown that government revenues are particularly vulnerable to terms-of-trade shocks in resource-rich countries (Figure 19.4), due to the significant dependence on the resource sector and also to the high elasticity of non-resource revenues with respect to GDP (von Haldenwang and Ivanyina 2018). Countercyclical fiscal policy is therefore particularly useful in resource-dependent countries as it helps provide a stable base for spending, therefore helping to avoid the temptation of increasing distortionary taxes in the face of negative shocks to commodity prices.
Unfortunately, experience shows that fiscal policy in most resource-rich countries has been mainly procyclical, due to overoptimism in good times, but also to rent-seeking behaviors (IMF 2015).

Fiscal rules could be a powerful commitment device for the countercyclical management of natural resource wealth. Fiscal rules in resource-rich countries have typically been formulated either as a floor on the fiscal balance—as in Chile and in the Central African Economic and Monetary Community (CEMAC)—or as a constraint on the flows of revenues to and from natural resource funds as in Norway (IMF 2015). Empirically, countries that have been successful at effectively using fiscal rules to promote countercyclical fiscal policy typically have strong institutions (IMF 2015).

A weak institutional framework challenges the enforcement of fiscal rules and leaves fiscal policy decisions at the mercy of political pressure and off-budget spending. For instance, Chad, Ecuador, and Papua New Guinea all had unsuccessful experiences with fiscal rules. In these countries, weak enforcement and increased spending pressures ultimately led to the abandonment of the sovereign funds which were judged incompatible with the budget needs (Keiko Takahashi 2010; IMF 2015).

Country Examples of Fiscal Rules for Managing Natural Resource Revenue Volatility
Botswana, Norway, and Chile are examples of countries that have used fiscal rules to promote countercyclical fiscal policy. The experiences of Botswana and Norway were met with success because: (1) they were successful at striking the right balance between flexibility and credibility in the design of their fiscal rules; and (2) they have achieved credibility in the implementation of their fiscal rules by limiting the number of deviations from the rules. Consequently, both countries have
not only enjoyed solid growth over extended periods, but they have also managed to keep public debt at relatively low levels (Pouokam 2021). In the case of Chile, success has been to some extent mixed, as the global financial crisis has complicated the ability of the country to commit credibly to its fiscal rule.

Botswana’s fiscal framework includes an institutionalized ceiling rule on public debt that is achieved with two fiscal targets: a balanced budget fiscal rule and a spending rule (Lledó et al. 2017). The debt limit rule was introduced by the Stock, Bonds, and Treasury Bills Act of 2005. It caps both total domestic debt and total foreign debt at 20 percent of GDP. The spending rule was introduced in 2006 as a limit of 40 percent of GDP on government spending. By 2018, the spending rule had been breached only once, during the 2008 global financial crisis; and public debt had remained below 15 percent of GDP.

Although Norway’s ceiling on the non-oil structural deficit in principle allows for some flexibility, the rule has been implemented as a de facto commitment to a positive budget balance. In principle, Norway’s fiscal framework allows for deviations from the fiscal rule, during both expansions and recessions. For instance, in the event of large changes influencing the structural non-oil deficit, it is expected that the pace of adjustment to petroleum revenue spending would be spread across several years, based on the projected future real returns on the fund (Official Norwegian Reports 2015). An expert commission reporting on the application of the fiscal rule is required to advise on how the fiscal rule should adapt to the exceptional circumstances (Government of Norway 2020c). Yet, despite the fact that deviations from the fiscal rule would be tolerated if warranted by exceptional circumstances, Norway has consistently accumulated fiscal surpluses, including during the global financial crisis (Pouokam 2021). This has helped keep the Norwegian public debt consistently below 25 percent of GDP, as of 2018.

Analysis of the financial position of Norway’s public sector suggests that its stellar natural resource management framework and fiscal rules have put it into a strong position to face aging pressures, though some limited fiscal consolidation would eventually be needed. It has been estimated that although the public sector’s assets exceeded liabilities by some 340 percent of GDP in 2018, the intertemporal net worth remained negative at about 240 percent of GDP when accounting for future liabilities related to old age pensions (Cabezon and Henn 2020). This is mainly because over the last 15 years, non-oil fiscal deficits have risen steadily from below 2 to above 7 percent of non-oil GDP (Cabezon and Henn 2020). However, estimates suggest that complementing Norway’s BIH framework with fiscal consolidation targeting a fiscal balance of 5 percent of non-oil GDP by the mid-2020s would make it possible to finance future pensions from the country’s oil wealth (Cabezon and Henn 2020). One important takeaway from Norway’s experience is that resource funds are the most effective at promoting fiscal sustainability when they are properly integrated with both the budget and the fiscal anchor, as has been stressed by Poplawski-Ribeiro et al. (2012).
The Chilean fiscal rule experience has mainly had mixed success. Established in 2001, the Chilean fiscal rule requires a positive structural balance. The structural balance is defined as the central government balance evaluated at potential output and using the long-term copper price. The rule initially led to the accumulation of fiscal surpluses which helped contain the public debt to GDP ratio below 7 percent, prior to the onset of the global financial crisis. In fact, Chile’s net asset position strengthened from 3.25 percent of GDP in 2000 to 19.5 percent in 2008, against the background of increasing copper prices. Since then, public debt-to-GDP has increased relatively rapidly, reaching the level of 25 percent of GDP in 2018. However, by all standards, Chile’s debt level still remains relatively low for a middle-income country.

Chile’s experience has proved that fiscal rules can become ineffective in difficult times if they are not sufficiently constraining. In practice, Chile’s fiscal framework allows the government’s administrations to change the structural balance target as desired. In fact, the structural target has been modified multiple times, despite the requirement by the Fiscal Responsibility Act of 2006 that incoming governments should announce structural fiscal targets for the full length of their mandates within the first 90 days of their administration (Lledó et al. 2017). From 2001 to 2007, the structural balance target was a surplus of 1 percent of GDP. In 2008, the target was brought down to a surplus of 0.5 percent of GDP. In 2009, the target was changed to a zero structural balance, and a de facto escape clause was introduced to accommodate the countercyclical measures implemented in the context of the global financial crisis. In 2010, an adjustment path was specified to get the structural balance to converge to 1 percent of GDP by 2014. In 2015, the fiscal rule of a balanced structural budget was temporarily abandoned with the plan that it would be reinstated in 2018 after a gradual adjustment path of fiscal consolidation that would continue to support pro-growth expenditure in infrastructure and education.

One lesson from Chile’s experience is that more predictability and a stronger anchor for fiscal policy, especially after deviations, can enhance commitment to the fiscal rule. It is good practice to embed clear guidance on medium-term objectives for the structural balance and net assets in the fiscal rule itself. An explicit escape clause to allow discretionary policy in the event of large, clearly defined shocks usually helps enhance clarity while preserving flexibility.

V. Natural Resources, Poverty, and Inequality

Most often, resource-rich countries have been unable to transfer an appropriate share of the resource dividend to those at the bottom of the market income distribution. In fact, many households in resource-rich countries still live below the US$1.90 a day poverty line (Figure 19.5). The evidence also suggests that higher
resource rents have generally not been associated with less market income inequality (Pouokam 2021), except for a few countries in the Middle East and North Africa (MENA) region and the Central Asia region which have usually used government employment as a means of keeping people out of poverty (Adams and Page 2003; IMF 2018). This indicates that resource-rich countries are generally not more successful than resource-poor countries at addressing inequality in opportunities. Equally surprisingly, the disposable income Gini in resource-rich countries has usually not been substantially lower than the market income Gini, suggesting that fiscal policy has not achieved much redistribution in these economies (Pouokam 2021).

Empirical studies suggest that resource wealth exacerbates rather than alleviates inequality. Eicher and Turnovsky (2003) documents a positive association, albeit weak, between the share of natural resource wealth in total wealth, and Gini market income inequality. Hartwell et al. (2019) finds evidence of a positive correlation between the lags of resource rents and market income inequality among countries with low levels of democracy, and a negative correlation among countries with relatively high levels of democracy. Lessmann and Steinkraus (2019) provides evidence of a strong and positive association between spatial inequality in the distribution of resource wealth and intergroup market income inequality.

The impact of resource abundance on education outcomes could be one fundamental reason why resource wealth does not seem to reduce inequality. To explain why market income inequality is higher in resource-rich Latin American countries compared to resource-poor East Asian countries, Leamer et al. (1999) propose the explanation that natural resource-intensive sectors absorb capital that might otherwise flow to manufacturing, hence delaying industrialization by depressing workers’ incentives to accumulate skills, and by the same token contributing to increasing inequality.

To explain the nexus between resource dependence, the level of democracy, and inequality, Hartwell et al. (2019) propose that the influence of democracy operates through three distinct channels affecting equity. First, democracies allow a broader number of checks and balances, thus preventing the concentration of power over the control of resource rents into the hands of a few economic and political players. Second, because it allows citizens to sanction an unsatisfactory distribution of resource windfalls and indirectly decide over social spending programs, democracy may help spread the resource wealth more equitably than autocracy. Third, by enabling the diffusion of power and by encouraging social spending, democracy encourages citizens to maximize their own potential and invest to improve their human capital.

Bhattacharyya and Hodler (2014) propose an alternative explanation linking resource abundance to a lack of will power to promote financial development.

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6 In the study of Hartwell et al. (2019), democracy is measured by the democratic accountability score from the International Country Risk Guide (ICRG) dataset.
They argue that in countries with poor political institutions, easy access to resource rent makes incumbent governments unwilling to take on the challenge of improving contract enforcement. In the absence of strong contract enforcement, the private sector finds it difficult to obtain credit and undertake otherwise productive activities. Resource wealth therefore hinders financial development which, as discussed in Chapter 4, is one channel to reduce inequality.

Resource-rich countries tend to have relatively lower spending in equity-promoting areas such as health and education. In fact, resource-rich developing countries invest markedly less in health and education (in terms of shares of GDP) than their resource-poor peers (Figure 19.5). Resource abundance has actually been shown to be negatively correlated with spending on education (Cockx and Francken 2016) and spending on health (Cockx and Francken 2014), including after controlling for GDP and other relevant factors. One possible explanation is that resource-rich countries tend to have opaque public finances and a lack of government accountability, both of which allow government officials to self-appropriate the economy’s resources and conduct inefficient policies that serve their own interests. These government failures are not unique to resource-rich countries, but are exacerbated by the rent-seeking opportunities
created by resource wealth. Thus, resource-rich societies need to build institutions capable of supporting human capital accumulation, which is fundamental for development and inclusive growth.

Tackling poverty and inequality requires investing earnestly in human capital, and creating budget space to assist the poor and vulnerable. This requires commitment to strong fiscal discipline to make sure that the funding base for education and health spending, but also social protection measures, is not eroded by commodity busts. It also requires a reprioritization of spending to focus on measures that effectively reach the poor. This could for instance involve abandoning costly fuel subsidies that primarily benefit the wealthy, and freeing up resources to invest more in health, education, unemployment insurance, school feeding programs, and cash transfers. The pioneering experience of Latin America with cash transfers that are conditioned on children's attendance to school or health clinic programs has shown that well designed cash transfers programs could be an effective approach to reducing inequality (Lustig, Pessino, and Scott 2013).

VI. Structural Policy: Making the Case for Economic Diversification

Effective diversification policies can help countries sustain high long-term growth and escape the trap of resource dependence. The experiences of Malaysia and Chile present two tales of economic diversification that other resource-rich countries could learn from.

A. The Experience of Malaysia with Economic Diversification

Early on, Malaysia shifted away from its import substitution strategy. In the early 1960s, Malaysia’s trade policy focused on an import substitution strategy (Lim 1987). Malaysia’s exports at the time relied heavily on tin and rubber production which was declining. This prompted the government to promote the development of new exports markets, but also to pursue vertical policies toward higher-value-added activities related to natural resource industries, including to support the export of oil refinery by the state company after oil was discovered in the 1970s. In fact, in the 1970s, Malaysia was one of the earliest oil exporters to scale down its import substitution strategy to rely more on an export promotion policy (Cherif and Hasanov 2015).

One key feature of Malaysia's diversification program was the strong involvement of the government which fiercely promoted Malaysian exports. To diversify Malaysia's export base, the government rallied the efforts of the private sector, initially focusing on promoting the development of the palm oil industry
(agricultural diversification), but later supplementing this with industrialization policies focused on export promotion. Agricultural diversification policies in Malaysia consisted in providing cash, tax incentives, and direct government support to promote the cultivation, processing, and exports of palm oil and palm oil products. Industrialization policies mainly focused on an export-oriented development strategy centered around free-trade zones, and were accompanied with trade liberalization and the promotion of human capital accumulation through support for education and skills development (Friska 2013).

These strategies initially produced spectacular results. Manufacturing exports rose from about 6 percent of total exports in the early 1970s to more than 70 percent in the early 2000s. Following the creation of the Multimedia Super Corridor (MSC) in 1996 to promote tax incentives favoring the IT sector, the share of the IT industry rose to more than 70 percent of manufacturing exports by the early 2000s (Friska 2013). However, since then, the process of structural transformation has stalled, indicating the need for a new strategy to reach higher value-added markets.

One reason which may explain why Malaysia’s progress has stalled is the lack of innovation and technology diffusion. In Malaysia, the process of industrialization has been mainly carried out by multinationals not keen on transferring technology to local firms, unlike in South Korea and Taiwan Province of China where innovation has been mainly carried out by local firms (Cherif and Hasanov 2015). As a result, growth in total factor productivity in Malaysia has lagged behind that of these two Asian Tigers, making it difficult for Malaysia to continue its process of structural transformation by further moving up the value-added ladder. The Malaysian experience hence suggests that a government-led diversification program can effectively promote new export markets early on, but would require research and development, along with technology diffusion to take the country to the technological frontier. The examples of “spin off” firms in Taiwan Province of China and “chaebols” in South Korea illustrate how close collaboration and long-term relationships with international firms can nurture innovation by local firms.

The approach of the government of Taiwan Province of China to technology diffusion has been summarized in two pillars (Cherif and Hasanov 2015): (1) an active participation of public and quasi-public research institutes which would spin off firms introducing new technologies; and (2) massive public investment in training engineers abroad to support the formation of a “technical community” with valuable technical experience and informal connections with the Silicon Valley. As explained in Cherif and Hasanov (2015), The Industrial Technology Research Institute (ITRI) was created in 1973 to negotiate licenses or technology-sharing agreements with US electronics firms. Typically, ITRI’s staff would be sent for training in the production facilities of US partners and upon their returns, would set up an experimental production unit within ITRI’s facilities. Once this stage was passed, the team of engineers and technicians involved in the new
technology would then form a “spin-off” firm with about 40–50 percent of the initial capital coming from the government. When the government of Taiwan Province of China ended its spin-off program in the mid-1990s, the leading firms in the electronics sector were already investing heavily in R&D and were using the best technologies available (Cherif and Hasanov 2015).

South Korea led an export-driven and very ambitious strategy to promote technology diffusion. The strategy mainly consisted of providing pecuniary incentives for South Korean firms to create global brands (chaebols) with strong footholds in several industries. These industrial conglomerates were encouraged to export immediately, and this, according to Cherif and Hasanov (2015) would be precisely the reason why the automaking industry expanded more rapidly in South Korean than it did in Malaysia, despite facing initially similar challenges in terms of technology acquisition and skills adequacy. Chaebols would receive loans with low and often negative real interest rates that were often made conditional on explicit and quantified exports targets (Cherif and Hasanov 2015). Stiff international competition therefore forced the chaebols to operate at the technological frontier very early on. Knowledge spillovers across the different industries in which the chaebols operated further supported overall productivity growth.

B. The Experience of Chile with Economic Diversification

Economic diversification effectively took off in Chile in the 1980s after trade liberalization reforms and successful efforts to bring technological innovation into strategic sectors. Starting in the mid-1970s, Chile pursued aggressive unilateral trade liberalization by slashing out imports tariffs and turning away from the import substitution strategy that had been in place since 1934 (Friska 2013). This set the stage for an export-oriented growth strategy focused on creating new export markets by introducing and disseminating new technologies in selected sectors. Large-scale technology diffusion was made possible by foreign direct investments, especially in the wine sector, but also by the work of Fundación Chile as a “do tank” in the fish and fruits sectors (World Bank, 2014). The Innovation for Competitiveness Fund (ICF) created in 2006 played a catalytic role as well, by establishing a framework for the use of windfalls from copper exports to support different programs for science and research and development (R&D). This helped finance and monitor high growth start-up firms, and led to significant investments in advanced skills, including scholarships to enroll Chileans into top global universities (OECD/WTO 2019).

What made Fundación Chile successful as a vehicle for technology transfer was its role as a not-for-profit venture capitalist. Technology transfer in Chile usually worked as a two-stage process (Lebdioui 2019). Initially, Fundación Chile would create firms to demonstrate the new technologies. Then, after the industry
had become viable, these firms would be sold to the private sector. From the very beginning, Fundación Chile would share its knowledge with private entrepreneurs, which in this way could freely access innovative technologies. Overall, Fundación Chile created around 70 firms (Lebdioui 2019).

In essence, Fundación Chile demonstrated viable business models through the companies it created. In the case of the salmon industry, the acquisition of the American company Domsea Farms and the creation of Salones Antarctica by Fundación Chile in 1981 helped bring production levels from very low levels up to around 1,000 tonnes by 1988 when Salones Antarctica was sold (Lebdioui 2019). Most importantly, this helped demonstrate to the private sector that the large-scale farming, breeding, and production of salmon in Chile was technically and commercially feasible (United Nations 2006). By the early 2000s, annual salmon production had surpassed 500,000 tonnes and salmon had become Chile’s second largest source of export revenues after copper (Lebdioui 2019). Similarly, in the fruits industry, Berries la Union, a company created by Fundacion Chile in 1980, helped elaborate a profitable business model for the cultivation of berries in Chile by disseminating the technology of cold storage systems (Agosin et al. 2010).

Overall, Chile’s diversification strategy has met with only partial success as merchandise exports remain essentially resource-based. In 1980, Chile’s merchandise exports were poorly diversified: mining accounted for 64 percent of total merchandise exports; the agro-industry for 24 percent; and manufacturing for 9 percent. As of 2019, the overall picture shows only moderate improvements: the share of the agro-industry in Chile’s total merchandise exports is relatively large at around 33 percent; but the share of the mining sector continues to be high at around 53 percent, while that of manufacturing continues to be low at around 13 percent. By comparison, in Malaysia the export share of the agro-industry sector fell from 46 percent in 1980 to 11 percent in 2019, while that of the nonrenewable resource sector (essentially fuel and mining) fell from 35 percent in 1980 to 18 percent in 2019, contrasting sharply with an increase from 19 percent to 70 percent for the manufacturing sector. In South Korea and Taiwan Province of China (herein “Taiwan”), which are both resource-poor economies, the share of manufacturing products in total merchandise exports which was already very high in 1980 (at 89 percent for South Korea and 88 percent for Taiwan) continues to be very high by all standards (at 87 percent for South Korea and 91 percent for Taiwan, as of 2019).

As a result of the focus on the agro-industrial sector, Chile’s diversification strategy has led to slow total factor productivity growth. In fact, despite the multiple innovations introduced in the Chilean wine, fishing, fruits, and meat industries, total factor productivity growth has stagnated since the 1970s, with Chile lagging significantly behind the Asian Tigers, but also behind Malaysia (Cherif and Hasanov 2015). Chile’s slow productivity growth has been attributed in part
to significant entry barriers and regulatory complexity (OECD 2018) which prevents small and medium enterprises (SMEs) from innovating and competing in sectors in which the Chilean government is not leading with a top-down approach to innovation and growth. For instance, in 2018, only 2 percent of Chilean SMEs participated in international trade (OECD 2018). More so, the concentration of Chile’s innovation efforts in the agro-industrial sector has not allowed the country to fully benefit from cross-sectoral knowledge spillovers catalyzed by exporting manufacturing firms (Herzer et al. 2006; Wei and Liu 2006). This could explain why productivity growth in Chile has been much lower than it has been in Malaysia, South Korea, and Taiwan in which the manufacturing sector has grown more rapidly.

VII. Conflict and Fragility

Conflict and fragility exacerbate the risk of misuse of resource wealth. Of the 36 countries identified as fragile in 2019, half were resource-rich countries in the 2000s, in the sense that they had an average ratio of natural resource rents-to-GDP that exceeded 10 percent. Of these 18 resource-rich fragile countries, only five were not low-income countries (Iraq, Libya, Myanmar, Papua New Guinea, and Timor-Leste). This tight nexus between resource wealth, economic development, and state fragility has been explained by a negative impact of natural resources on the institutional climate and the state capacity in fragile countries (Chami et al. 2021). The effect of natural resources on state capacity operates through two channels.

First, natural resource windfalls fuel military spending and conflict. The basic mechanism is that natural resource wealth not only heightens the stake for conflict in institutionally weak countries, but it also contributes to the opacity of budget processes, thereby allowing for the prioritization of military spending over human capital development needs. In fact, in fragile states, resource wealth tends to be associated with a higher ratio of military spending over GDP (Figure 19.6). Consistent with this fact, Deléchat et al. (2018) shows that a relatively high level of natural resource rents is associated with a relatively low probability that a fragile country would eventually exit fragility by reaching a Country Policy and Institutional Assessment (CPIA) score above what could be considered a threshold for institutional resilience.

The list of fragile and conflict-affected situations (FCS) is released annually by the World Bank Group (WBG). Fragile countries are countries with high levels of institutional and social fragility, identified based on CPIA scores, and countries affected by violent conflict, identified based on a threshold number of conflict-related deaths relative to the population. https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations

The CPIA—Country Policy and Institutional Assessment—rates countries against a set of 16 criteria grouped in four clusters: (a) economic management; (b) structural policies; (c) policies for social
Second, dependence on natural resources weakens fiscal capacity in fragile countries. Natural resource wealth undermines efforts to collect non-resource revenues—particularly VAT, corporate, and trade taxes (Crivelli and Gupta 2014). In doing so, natural resource wealth contributes to weakening fiscal capacity in fragile countries (Deléchat et al. 2018). Weak capacity in turn challenges the management of government revenues. This for instance creates hurdles for the completion of public infrastructure projects in the face of reversals in commodity booms, leading to additional inefficiencies. More generally, fragility makes a strong case for strengthening institutional capacity to promote sound fiscal policy and a conscious sharing of the resource wealth across generations.

History teaches us that improving governance and investing in human capital would be the way out of the vicious cycle of resource dependence and poverty. Of the 52 countries classified by the World Bank as low-income in 1995, only 28 had become middle-income countries by 2014, while the 24 other countries had remained low-income countries, including among them 12 resource-rich countries of which 8 are currently classified as fragile-conflict states (World Bank 2018). The 24 countries that were unable to graduate to the status of middle-income countries also had the lowest rankings on most dimensions of institutions and governance quality as measured by the World Governance Indicators—voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption (World Bank 2018). Among the 28 countries that successfully made the transition to the middle-income status, 15 countries considered resource-rich effectively invested in other forms of assets than natural capital. However, among these 15 countries, only those which invested significantly in human capital were able to cut their poverty rates by half.

Figure 19.6  Military Spending and Resource Wealth in Low-Income Countries

Source: Author’s calculations using data from the World Development Indicators database.
VIII. Strengthening Governance in the Management of Resource Wealth

The positive role of good governance in the management of natural resource wealth cannot be overstated. Strong institutions are essential to establishing effective regulatory frameworks and promoting accountability and transparency which together condition a country’s capacity to exit the vicious cycle of resource dependence and poverty discussed earlier. Steps usually taken by governments in resource-rich countries to promote accountability and transparency include joining the Extractive Industries Transparency Initiative (EITI) and endorsing the Santiago Principles for the management of Sovereign Wealth Funds (SWFs).

The Santiago Principles
The Santiago Principles are a voluntary code of 24 guidelines for the management of SWFs. These guidelines were proposed in 2008 through a joint effort between the IMF and the International Working Group of SWFs. They are organized in three blocks aiming at three different objectives: (1) encouraging SWFs to publicly disclose their legal frameworks and policy purposes; (2) promoting a sound governance framework that clearly and effectively divides roles and responsibilities among a SWF’s constituents; and (3) supporting appropriate investment and risk management frameworks for SWFs (Tapsoba, 2014). As of 2020, 33 countries have signed up to the Santiago Principles.9

The Extractive Industries Transparency Initiative
Established in 2003, the Extractive Industries Transparency Initiative (EITI) is a global standard to support transparency and accountability in the management of extractive resources in resource-rich countries.10 The EITI promotes transparency by publishing independent reports on resource revenues, and by requiring that governments engage with civil societies as a way of disseminating information on the revenues collected. EITI reports compare company information on payments from of oil, gas, and mining operations with government information on revenues from these sectors. Signatory countries lose credibility in the management of their natural resource wealth if they fail to produce information on resource revenues that can be reconciled with payments data from extractive industry (EI) companies. Adhering to the EITI therefore provides additional incentives for governments to truthfully report on the revenues collected. Ultimately, greater

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9 These countries are: the United Arab Emirates, Rwanda, the United States, France, Mexico, Italy, China, Spain, Panama, Senegal, Angola, Australia, Singapore, Nauru, Ireland, Morocco, Kazakhstan, Malaysia, South Korea, Kuwait, Libya, Iran, New Zealand, Nigeria, State of Palestine, Qatar, Russia, Oman, Azerbaijan, Trinidad and Tobago, Botswana, Timor-Leste, and Turkey. https://www.ifswf.org/our-members

10 https://eiti.org/who-we-are
transparency on the amount of resource revenues collected by the government could lead to more inclusive spending policies as informed citizens make the government accountable for its poor choices. As of 2020, 53 countries are members of the EITI; three countries have lost their membership for failing to meet EITI standards (Equatorial Guinea, Gabon, and Yemen); and four have withdrawn from the EITI (Azerbaijan, the United States, Niger, and Solomon Islands).11

IX. Conclusion

Many countries have an economic structure dominated by resource wealth that is expected to be exhausted within a generation. These countries urgently need to design policies, especially maintaining appropriate fiscal frameworks, to share the benefits of the resource wealth equitably and sustainably across generations, and to mitigate the adverse economic and fiscal impacts of resource revenue volatility.

Resource-rich countries must overcome the challenge of poor governance and actively seek to diversify their economies with policies conducive to a friendly business climate. Only by doing so would they be able to leverage their resource wealth to positively transform lives, one generation at the time. This is particularly true for hydrocarbon producers for whom the quest for the decarbonization of the global economy to mitigate climate risks poses the threat of an economic collapse. To produce long-lasting results, efforts to diversify must be accompanied with an effective competition policy and the removal of bottlenecks to innovation and technology diffusion.

Exiting the trap of resource abundance and poverty requires significant and efficient investment in human capital. History has taught us that resource-rich developing countries which dedicate significant effort in fostering human capital accumulation are generally able to sustain high growth, reduce poverty significantly, and escape the state of fragility. To underpin such efforts, strengthening state capacity and transparency with the establishment of pro-growth institutions is undeniably the right place to start.

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11 https://eiti.org/other-countries
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