

Using Natural Resources for Development: Why Has It Proven So Difficult?

Anthony J. Venables

Using natural resources to promote economic development sounds straightforward. A country has subsoil assets such as hydrocarbons and minerals, which it seeks to transform into surface assets—human and physical capital—that can be used to support employment and generate economic growth. Such assets should be particularly valuable for capital-scarce developing countries, especially as revenues from their sale accrue largely in foreign exchange and can supplement the otherwise limited fiscal capacity of their governments.

In practice, this transformation has proved hard. Indeed, few developing economies have been successful with this approach, and economic growth has generally been lower in resource-rich developing countries than in those without resources. It was not until the 2000s (a period of rising commodity prices) that resource-rich countries grew faster, although even then per capita growth was similar in both groups of countries (IMF 2012b). The term “resource curse” was coined (Auty 1993) to capture the underperformance of resource-rich economies, drawing attention to the weak performance of Bolivia, Nigeria, and Venezuela, amongst others.

Successful use of nonrenewable natural resources involves multiple stages. Resource deposits have to be discovered and developed. If and when this is done, resource revenues are divided between investors, government, and other claimants. How are the terms of this division decided, and how are such revenues utilized by the recipients? There is likely to be intense pressure for current spending rather than investment in assets that will be productive over time. Investment in the domestic

■ *Anthony J. Venables is BP Professor of Economics Department of Economics, University of Oxford, Oxford, United Kingdom. His email address is tony.venables@economics.ox.ac.uk.*

† For supplementary materials such as appendices, datasets, and author disclosure statements, see the article page at

<http://dx.doi.org/10.1257/jep.30.1.161>

doi=10.1257/jep.30.1.161

economy needs to be directed to high social return projects, but these may be difficult to identify and to implement. Placing the revenues in offshore funds may be appropriate for capital-rich economies, but does little to boost economic development in a capital-poor country. Ultimately, it is the private sector that will create the sustainable jobs and economic growth, so resource management has to be done in a manner that will support private sector investments. But even if revenues are effectively utilized, resource exports can appreciate the exchange rate and prove damaging to other tradable sectors of the economy—the so-called “Dutch disease” effect. An economy with substantial exports of natural resources can become overly dependent on a single volatile source of income, and this volatility can destabilize the macroeconomy.

Subsoil assets are property of the state in almost all countries except the United States. Thus, to navigate the multiple stages in the use of natural resources successfully, governments in resource-rich countries need to be well-intentioned, far-sighted, and highly capable. Yet many resource-rich economies have weak governance that can be further undermined by the political forces that are unleashed with the prospect of resource wealth.

The multistage nature of the challenge means that no single answer can be given to the question of why it has proven so difficult to harness natural resource wealth for broader economic development. While some countries have succeeded in using natural resources for development, others have failed, each in their own way. This paper discusses the challenges posed by each of these stages, the evidence on country performance, and some particular country examples. We start by outlining the scale of the issue and the main facts about resource-rich low-income countries. Following sections then turn to each of the main stages: the upstream issue of attracting investment in the resource sector and securing a flow of resource income; the economics and politics of managing revenue from natural resources; and the wider impact of substantial natural resource exports on the structure and diversification of the economy. Lessons in all of these areas, along with the future prospects for resource-rich low-income countries, can be drawn both from resource-rich countries that have succeeded in building on their resource base and from those which have not.

Facts

The IMF classifies 51 countries, home to 1.4 billion people, as “resource-rich.” This classification is based on a country deriving at least 20 percent of exports or 20 percent of fiscal revenue from nonrenewable natural resources (based on 2006–2010 averages as explained in IMF 2012b). In 25 of these countries, resources make up more than three-quarters of exports, and in 20 of them resources provide more than half of government revenues. A full list of the 51 countries, along with a further 12 developing countries that are “prospectively” resource rich, is available in the online Appendix available with this paper at <http://e-jep.org>. The

Table 1

Resource Dependent Low- and Lower-Middle-Income Countries

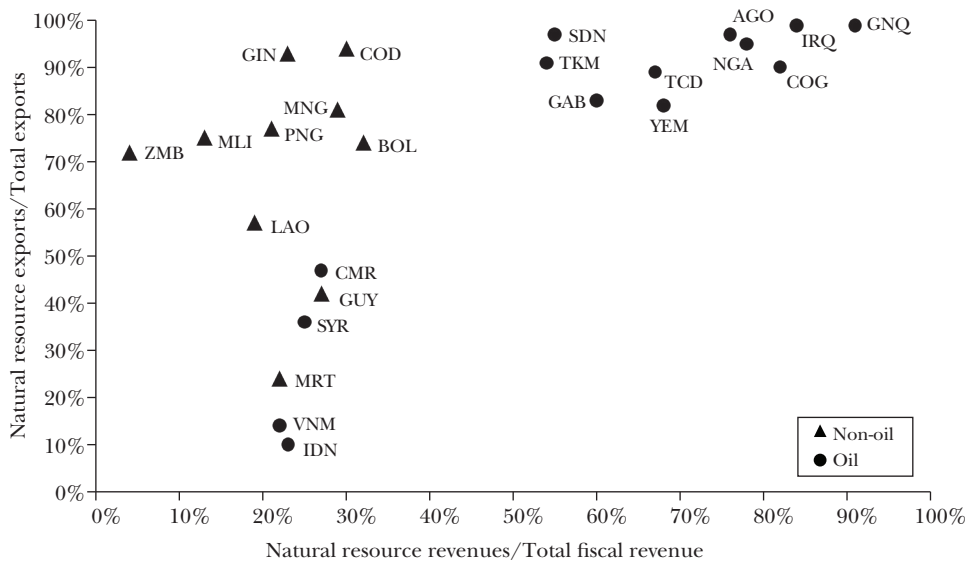
<i>Country</i>	<i>Type of natural resource</i>	<i>GNI per capita (2010 US\$)</i>	<i>Natural resource exports as % of total exports (2006–2010 average)</i>	<i>Natural resource fiscal revenue as % of fiscal revenue (2006–1000) average)</i>
Congo, Dem. Rep.	Minerals & Oil	180	94	30
Liberia	Gold & Iron Ore	210	—	16
Niger	Uranium	360	—	—
Guinea	Mining Products	390	93	23
Mali	Gold	600	75	13
Chad	Oil	710	89	67
Mauritania	Iron Ore	1,000	24	22
Lao PDR	Copper & Gold	1,010	57	19
Zambia	Copper	1,070	72	4
Vietnam	Oil	1,160	14	22
Yemen	Oil	1,160	82	68
Nigeria	Oil	1,170	97	76
Cameroon	Oil	1,200	47	27
Papua New Guinea	Oil/Copper/Gold	1,300	77	21
Sudan	Oil	1,300	97	55
Uzbekistan	Gold & Gas	1,300	—	—
Côte d'Ivoire	Oil & Gas	1,650	—	—
Bolivia	Gas	1,810	74	32
Mongolia	Copper	1,870	81	29
Congo, Rep. of	Oil	2,240	90	82
Iraq	Oil	2,380	99	84
Indonesia	Oil	2,500	10	23
Timor Leste	Oil	2,730	99	—
Syrian Arab Rep.	Oil	2,750	36	25
Guyana	Gold & Bauxite	2,900	42	27
Turkmenistan	Oil & Gas	3,790	91	54
Angola	Oil	3,960	95	78
Gabon	Oil	7,680	83	60
Equatorial Guinea	Oil	13,720	99	91

Source: World Development Indicators, World Bank; and IMF staff estimates.

upper-middle-income resource-rich economies are a mixed group, including countries from Latin America (like Chile and Venezuela), central Asia (Azerbaijan and Kazakhstan), and Africa (Libya and Algeria). The high-income resource-rich economies are mainly Middle Eastern oil exporters, along with Norway and Trinidad and Tobago. Of the twelve “prospectively” resource-rich countries, with new discoveries that are yet to be fully developed, nine are in Africa.

Our focus is on low- and lower-middle-income resource-rich countries. There are 29 such countries, which are listed in Table 1. For this group there are four key facts. First, for many of these countries, there is extreme dependence on natural

Figure 1

Share of Exports and Fiscal Revenue from Natural Resources*(average 2006–2010)*

Sources: World Development Indicators, World Bank; and IMF staff estimates.

Notes: AGO = Angola; BOL = Bolivia; CMR = Cameroon; COD = The Democratic Republic of Congo; COG = Republic of the Congo; GAB = Gabon; GIN = Guinea; GNQ = Equatorial Guinea; GUY = Guyana; IDN = Indonesia; IRQ = Iraq; LAO = Laos; MNG = Mongolia; NGA = Nigeria; MLI = Mali; MRT = Mauritania; PNG = Papua New Guinea; SDN = Sudan; SYR = Syria; TCD = Chad; TKM = Turkmenistan; VNM = Vietnam; YEM = Yemen; ZMB = Zambia.

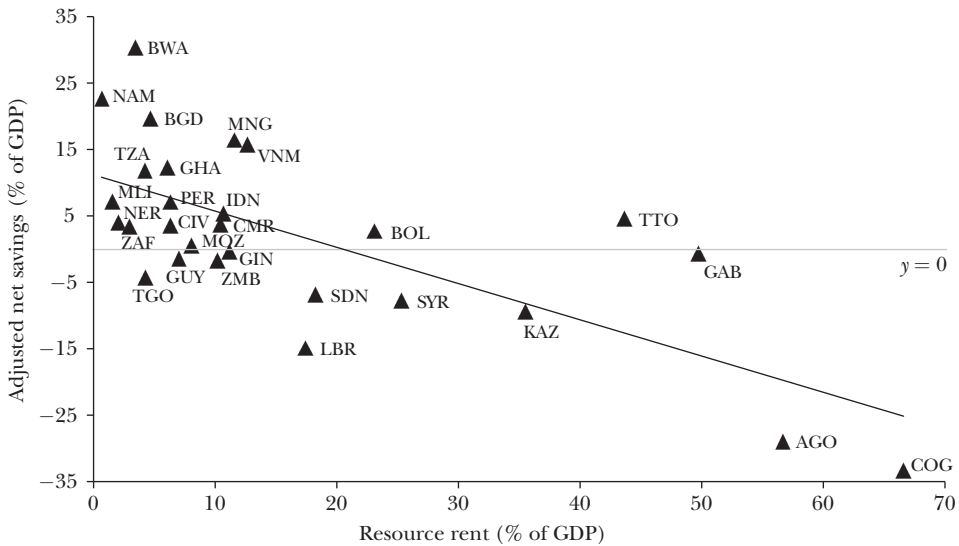
resources for fiscal revenues, export sales, or both. Figure 1 plots the fiscal and export dependency of the 24 of these countries for which reliable data are available. Ten of them receive more than half of fiscal revenue from resources, and in 17 of these countries, resources constitute more than two-thirds of their exports. Fiscal dependency is particularly acute for oil producers.

Second, saving in these low-income resource-rich economies has generally been low. This is illustrated in Figure 2, showing the relationship between resource rents and adjusted net savings, both expressed as a percentage share of GDP, for 28 middle- and low-income resource-rich countries. Resource rents are measured by the World Bank in its World Development Indicators as gross revenues from oil, natural gas, coal, minerals, and forests minus their estimated extraction costs. Adjusted net savings are national savings plus education expenditure and minus depletion of natural resources (World Bank 2011). As is apparent, this measure of adjusted national saving is strongly negative for a large number of resource-rich low-income economies, and there is a negative correlation between resource rents and the savings rate.

Figure 2

Adjusted Net Savings and Exhaustible Resource Rent

(average 2000–2009)



Sources: World Development Indicators, World Bank; and IMF staff estimates.

Notes: AGO = Angola; BGD = Bangladesh; BOL = Bolivia; BWA = Botswana; CMR = Cameroon; COG = Republic of the Congo; CIV = Côte d'Ivoire; GAB = Gabon; GHA = Ghana; GIN = Guinea; GUY = Guyana; IDN = Indonesia; KAZ = Kazakhstan; LBR = Liberia; MNG = Mongolia; NAM = Namibia; NER = Niger; MLI = Mali; MOZ = Mozambique; PER = Peru; SDN = Sudan; SYR = Syria; TGO = Togo; TTO = Trinidad and Tobago; TZA = Tanzania; VNM = Vietnam; ZAF = South Africa; ZMB = Zambia. Resource rents are measured by the World Bank in its World Development Indicators as gross revenues from oil, natural gas, coal, minerals, and forests minus their estimated extraction costs. Adjusted net savings are national savings plus education expenditure and minus depletion of natural resources.

Third, the growth performance of all the resource-rich economies as a group has been generally poor, although a few countries have done well—for example, Botswana, Malaysia, and Chile. This cross-country finding has been extensively researched following the seminal work of Sachs and Warner (1995, 1997) who found (after controlling for initial income per capita, investments in physical and human capital, trade openness, and rule of law) that natural resource dependence had a significant negative effect on the growth of GDP per capita, with a 10 percentage point increase in the ratio of resource exports to GDP depressing average growth by 0.77–1.1 percentage points per annum. Important later contributions include Mehlum, Moene, and Torvik (2006) who interact resource abundance with institutional quality and find the negative effect of resource-richness on growth to be present (and larger) only for countries with poor institutional quality, the break-even point being around the institutional quality of Botswana. More recent work has looked at some other dimensions of the connection from natural resource wealth to growth. For example, subnational evidence finds that the local impact

of extraction has positive effects (Cust and Poelhekke 2015), but the local impact of rent distribution is negative (Caselli and Michaels 2013). An extensive review of this literature, which also discusses the endogeneity issues associated with different measures of resource abundance, is found in Smith (2015).

Looking just at developing countries, there has been a recent improvement in the relative performance of resource-rich economies, with average per capita growth rates of resource-rich developing economies equalling those of nonresource rich in the 2000s, after being 1 percent per year lower in the 1990s. Of course, much of the earlier 2000s was also a time of booming oil and commodity prices and of rising resource trade with China, so this remains a very modest growth performance. As Ross (2012) wrote of growth performance of resource-rich economies: “[T]he real problem is not that growth . . . has been slow when it should have been normal, but that it has been normal when it should have been faster than normal.”

Fourth, resource revenues can be highly volatile. Some variability is predictable—due to opening of new deposits of natural resources and closure of depleted ones—but much is unpredictable and largely due to the volatility of commodity prices, particularly that of oil. There is a large literature on the measurement and causes of commodity price instability (for example, Arezki, Loungani, van der Ploeg, and Venables 2014), and our concern is principally its impact on resource producers. The scale of the issue is vividly illustrated by the fact the World Bank’s measure of resource rents, for the world as a whole, has fluctuated at between 1½ percent (1998) and 7 percent (2008) of world GDP over the last 20 years. Amongst resource-rich developing economies, measures of volatility (for example, the coefficient of variation of export revenues) typically exceed those of nonresource-rich countries by 50 percent for mineral-rich countries and more than 100 percent for oil-rich countries. Smoothing is made difficult by the long cycles of many commodity prices (particularly oil, elevated in the periods 1974–85 and 2003–2014 and with long periods of lower, but still variable, prices in between). Volatility of fiscal revenues is transmitted into even greater volatility of government spending as a consequence of procyclical public spending (IMF 2012a, b). A study by van der Ploeg and Poelhekke (2009) decomposes the effect of resource dependence on growth into a direct and a volatility effect, finding that the direct effect is positive but often dominated by the negative indirect effect through volatility.

Discovery, Development, and Rent Capture

Prerequisites for using natural resources to promote economic development are their discovery, investment in the mines or wells necessary for their extraction, and securing the subsequent flow of income. These upstream stages of resource management are complex, and the resource endowments of many developing countries remain underexplored and underexploited.

Initial discovery and development of a natural resource deposit requires investment by firms with considerable technical expertise. In developing countries,

these firms are generally foreign-owned. Economic principles suggest that the host country—owner of the resource—should put in place a regulatory and fiscal regime in which the investor can make a normal rate of return, and rents over and above this rate can then be captured by the resource owner, the state. A regime of this sort has a number of elements. Exploration and development licenses generally carry a fee, often determined by auctioning of the rights. Subsequent resource extraction is taxed through a combination of royalties on output, production-sharing agreements in which a certain fraction of production is taken by the government directly, and through corporate income tax, possibly at a rate specific to the extractive sector. Actual practice varies widely between countries, but one straightforward example is the sale of US oil and gas exploration and development rights on the outer continental shelf between 1983 and 2002. Sale was by first-price sealed bid and raised \$16 billion from fees (bonus payments) on winning bids, and a further \$14 billion from subsequent royalties on the 15 percent of tracts where exploration was successful and production took place (as measured in 1982 prices, according to Hendricks and Porter 2014). The Libyan auction of 2005 offers a more complex example. Investors bid a production share and other terms with, for example, one particular winning bid giving government 88 percent of gross revenue; government paying 88 percent of operating costs and lower shares of exploration and development costs; and, once cost recovery is complete, the company's profits on the remaining 12 percent being subject to a tax rate rising from 10 to 50 percent (Cramton 2010).

Even this quick sketch of the regulatory and tax problem suggests a number of complicating factors that can deter investors and depress the revenues that can be captured by the state. First, the process through which licenses are allocated can raise difficulties. Ideally, this process is transparent, competitive, and can secure a high fraction of the rent for the state. Auctions will often be useful, but are not appropriate in all cases: for example, where there is a single dominant bidder. Thus, Botswana negotiated rights to diamond extraction with dominant player De Beers, rather than using an auction. The use of auctions is now widespread (particularly for oil, less so for hard-rock minerals), but there are many instances of rights having been awarded in ways that are nontransparent and possibly corrupt, and thus not ending up with the best-qualified investor. A recent example involves the Simandou iron-ore project in Guinea (*The Economist* 2014).

Second, investments in discovery and extraction of nonrenewable resources are inherently risky due to geological and price uncertainty. Investors are further deterred by uncertainty surrounding the local economic, institutional, and political environment. The regulatory environment may be cumbersome and unpredictable. Weak infrastructure may increase extraction costs. Security may be a concern, and the resource itself may be subject to theft. In Nigeria, theft of crude oil (known as “bunkering”) is estimated to run at 10–15 percent of total production (Katsouris and Sayne 2013; Council on Foreign Relations 2015). Theft also occurs through corruption in award of contracts, as in the Petrobras scandal that is shaking Brazil (*The Economist* 2015).

Added to this, investors may be deterred by risk of hold-up. Investments are sunk and long-lived, and governments, present and future, will have an incentive to change contractual and fiscal terms once the investment is in place. At the extreme, there is expropriation risk, but there is a broader risk of changes in rates of taxation and tax allowances. This incentive is countered by reputational risk the government faces if it expects to develop future fields and, in some cases by a variety of legal mechanisms. Bilateral investment treaties offer investors protection against breach of contract. Where such treaties do not exist, countries can offer contract-specific stabilization agreements that guarantee terms (or equivalent value), the credibility of which can be reinforced by offering international arbitration and waiving sovereign immunity. Some of these agreements have been breached (as in the *Zambian* example to be discussed shortly), but legal remedy has rarely been sought by investors, since this path would severely damage the investor's relationship with the host country. Nevertheless, such agreements are judged to have offered some security to investors, principally by steering countries that have experienced changed circumstance towards contract renegotiation rather than unilateral action (Daniel and Sunley 2010).

Other inefficiencies arise in the regime for taxing output. Ideally, the regime should tax rents, leaving marginal extraction decisions unaffected. However, investors can disguise profits by accounting practices such as transfer mispricing (of inputs and, for specialty minerals, also of outputs). A response is to tax observable outputs, which in practice means to use royalties and production sharing agreements, even though these methods are inefficient since they distort investment and extraction decisions (Mullins 2010). The tax regime also determines the time profile of revenues and risk-sharing between government and investors. Government impatience and risk aversion militate towards the use of royalties and production-sharing agreements rather than a pure profits tax.

What are the implications of these difficulties in the relationship between investor and host country? In some cases, government "take" (that is, the share of revenues) has been exceptionally low. An example is the *Zambian* copper industry which, following an unsuccessful privatization, was resold with a fiscal regime that was equivalent to an effective royalty rate of 0.6 percent, one-tenth that of comparable mining projects (Adam and Simpasa 2011). These fiscal terms turned out to be unsustainable and were revised in 2008, breaching the fiscal stability assurances that had been given, but no action was brought against the government (Daniel and Sunley 2010).

Response to low take—or more generally, to the dominant role of foreign investors—has led to "resource nationalism," including the development of national resource companies to work with, or in some cases to take over, foreign investors. In the oil sector, the formation of such national oil companies occurred largely in the 1970s, and such firms now control 90 percent of world oil reserves and over 70 percent of production. The experience of these companies has been mixed. Some of them have attained world-class efficiency levels, like Saudi-Aramco and Petronas of Malaysia. Others have failed to provide effective management, in some

cases leading to dramatic declines in output, like the Nigerian National Petroleum Corporation and Zambian Consolidated Copper Mines. McPherson (2010) details further country experiences.

The more widespread problem has not been low government take from resources that are discovered and developed, but rather a failure to undertake exploration and the follow-up investments. The deterrent effect of weak institutions is studied by Cust and Harding (2013), who look at investment in areas with similar geology on either side of an international border. They find that lower institutional quality (a one-standard-deviation reduction in the political rights index produced by Freedom House) halves the number of wells drilled. A sharp example is the Albert Graben geological basin between Uganda and the Democratic Republic of the Congo, where all exploration (and substantial discoveries) has been on the Ugandan side. The scale of the problem is indicated by Collier (2007), who estimates that the value of known subsoil assets per square kilometer in Africa is just one-quarter of those remaining in OECD countries, which seems to be most likely a consequence of lack of exploration rather than resource-barren geology in Africa.

Managing Revenues

Despite these difficulties, many countries derive a high share of fiscal revenues from the natural resource sector (as shown earlier in Figure 1). What principles should guide the use of such revenues, how well have those principles been followed in practice, and why the divergence between principles and practices?

Principles

There are three key questions about the use of rents from extraction of nonrenewable resources: 1) Should the use of these resources be focused on current consumption or on investment? 2) For the investment component, what financial, physical capital, and human capital assets should be acquired? 3) Should the rents be handled by the government directly or handed to citizens? I address these questions in turn.

Concerning the question of whether revenues from nonrenewable resources should be spent on current consumption or on investment, one ethical position is that of custodianship: the current generation should pass assets on intact to future generations. In contrast, a utilitarian would argue for spreading the benefits across present and future generations. Economists' usual characterization of this approach is the permanent income hypothesis which implies that, following a discovery of an exhaustible natural resource, consumption should increase by the expected annuity value of the discovery, with revenues in excess of this being invested to build a stock of assets sufficient to finance the consumption increment in perpetuity. However, this rule needs modification in a developing economy that is capital-scarce and accumulating capital as it converges to a higher income path. The consumption increment should then be somewhat front-loaded; less should

go to future generations (who will have higher incomes in the future anyway) and more to current poverty reduction. In effect, this change brings forward (and therefore flattens) the path of consumption growth in the economy (van der Ploeg and Venables 2011). But even with this modification, the theory suggests a high savings rate from resource revenues.

Concerning the question of what assets should be acquired with resource revenues that are saved, at the aggregate level this is a choice between domestic and foreign assets. For a capital-abundant country, the usual answer is to accumulate foreign assets in a sovereign wealth fund, such as Norway's Pension Fund. For a capital-scarce country, the priority is to build domestic assets—including human as well as physical capital. Scarcity not just of capital as a whole, but of public funds in particular, suggests that government investment in infrastructure and in public health and education systems should offer high social returns. However, scarcity of funds does not automatically imply that high-return projects are immediately available. An efficient path of investment needs to take into account domestic opportunities and the absorptive capacity of the economy.

While the priority is domestic investment, there are several reasons for supporting this with some accumulation of foreign assets. One is that the efficient path of domestic investment will, quite generally, be different from the actual path of revenue, often building up more slowly and being less volatile. This suggests the need for a “parking fund”—that is, a way of placing revenues offshore until they can be used efficiently in the domestic economy. Another reason is the need to self-insure against price uncertainty by building a “stabilization fund.” Some insurance against price fluctuations can be provided by financial instruments. Much oil is sold forward—that is, a price is agreed upon in the present at which the oil will be sold in the future, typically at durations up to six months. Mexico goes further, purchasing options; for example, in 2015 Mexico spent more than \$1 billion to guarantee a 2016 price of least \$49 a barrel on an output of 212 billion barrels of oil. However, these financial instruments are relatively short run, and so do not provide protection against the long swings of resource prices. Depositing revenues in a stabilization fund when resource prices are high is a way of building such a protective buffer.

Concerning the issue of who makes these consumption and investment decisions, the broad distinction is between the government and the private sector. The government, while distributing some revenues through current spending, can retain ownership of assets that are acquired. These may be public investments, or assets associated with lending to the private sector, perhaps through a development bank or simply by having lower government (domestic) debt than would otherwise have been the case. The alternative is that funds are given to the private sector by tax reductions or a program of citizen dividends. An example is the US state of Alaska, where fossil fuel revenues are placed in a fund, income from which is paid directly to citizens through the Permanent Fund Dividend Program.

The case for government control is derived from the scarcity of public funds in developing countries and the need to increase public investment in human

and infrastructure capital. Resource revenues can fund such investments without imposing taxes that will be distortionary and can be hard to administer in low-income countries. Furthermore, government can smooth spending, both across generations and also in response to short-run business cycle fluctuations, mitigating the risk of resource-induced macroeconomic instability. The potential benefits of distribution to the private sector are based largely on the poor track record of governments. Direct distribution to citizens may reduce the risk of corruption and improve the quality of investments undertaken, although the link from citizen dividends to efficient investment is questionable in a country with poorly developed financial institutions. Citizen dividend schemes also create their own political risks, as they may become highly politicized and subject to electoral bidding wars by populist politicians (Gupta, Segura-Ubiergo, and Flores 2014).

Outcomes

How and why do actual outcomes differ from these principles?

On the basic question of whether a significant proportion of the rents from extraction of nonrenewable resources are being saved, Figure 2 earlier showed that savings rates (in any form, whether domestic investment or foreign funds) have generally been low for low-income resource-rich countries. Public investment as a share of GDP has been (until the 2000s) lower in resource-rich low-income countries than in other low-income countries (IMF 2012b). There is cross-country panel evidence that higher resource rents are actually associated with lower public capital stocks, particularly in countries with weak institutions (Bhattacharya and Collier 2014). When governments have sought to invest savings from resource revenues, the results have often been inefficient in both design and implementation. There are numerous white elephant projects, and resource-rich countries perform poorly on the IMF's index of public investment management efficiency (Dabla-Norris, Brumby, Kyobe, Mills, and Papageorgiou 2012).

Some countries have established sovereign wealth funds in which the state invests resource revenues offshore. Botswana's Pula Fund has been successful in managing both long-run investments and stabilization. Spending by Botswana's government has been de-linked from current resource revenues, and revenues that do not meet government spending and investment criteria are invested abroad through the fund (IMF 2012b). Other experiences have been less happy. Nigeria's Excess Crude Account has played some role in stabilizing the economy, but its effectiveness has been undermined by failure of many state governments to ratify the federal Fiscal Responsibility Act that set up the fund; by absence of sound legal foundation; and by "ad hoc disbursements" (IMF 2011). Gauthier and Zeufack (2011) study the experience of Cameroon, which was initially praised for setting up an offshore (and extra-budgetary) account to manage oil revenues, but from which about half of Cameroon's total oil revenue subsequently disappeared. The overall record on stabilization funds has been poor, with multiple episodes of boom and bust. In Collier and Venables (2011), we offer a number of examples, including a study of Chile's successful Economic and Social Stabilization Fund.

Transfers of funds from the public sector to the private have been achieved to varying extents and by different means. Some of the transfer comes from lower taxes, with the average share of tax revenue in GDP being 0.2 percentage points lower for each 1 percent of GDP earned by government from resource revenues (Bornhorst, Gupta, and Thornton 2009). Citizen dividend schemes are rare in developing countries. Mongolia established a scheme, but it was scaled back dramatically in 2012 after exaggerated election promises led to transfers that exceeded resource earnings (Yeung and Howes 2015). Transfers of resource revenues to the private sector are often achieved through highly inefficient mechanisms, with fuel subsidies being the most notorious example in which oil exporters are among the highest subsidisers. For example, the price of gasoline in Venezuela has been less than \$0.10 per gallon and Iran's energy subsidies peaked at 10 percent of GDP in 2010, shortly before a subsidy reform program was launched (for a broader picture, see Coady, Gillingham, Ossowski, Piotrowski, Tareq, and Tyson 2010; Cody, Parry, Sears, and Shang 2015).

A more subtle issue arises with the interaction between public saving and private sector behavior. At least some fraction of public sector saving will be perceived to ultimately accrue to the private sector—for example, leading to expectations of lower future taxes or higher pensions—which can lead to changes in private sector behavior that may undermine government policy. In Kazakhstan, the government acted prudently, saving around one-third of oil revenue in a sovereign wealth fund. But the private sector ran up foreign debt of a similar magnitude, leading to a severe crash in 2007–2008 (Esanov and Kuralbeyeva 2011). It appears that foreign borrowing by Kazakhstan's banking sector was facilitated by the perceived collateral of sovereign assets.

Causes

These examples illustrate what has gone wrong with the management of revenues from extraction of natural resources; but why have matters so often gone so wrong? Part of the answer lies in technical difficulty: coping with massive fluctuations in export earnings or with private credit booms is challenging for any government. Part is due to weak governance, which has, in some cases, been further damaged by the presence of resource revenues. Here, I will focus on issues of fiscal discipline, patronage politics, and the situations in which resource revenues inflame conflict—up to and including civil war.

Many resource-rich countries have found it difficult to maintain *fiscal discipline* in the face of competing claims for a share of resource revenues. The literature has approached this problem in various ways, the simplest of which is a model in which groups are powerful enough to obtain public spending for their projects even though the projects yield low social returns (Velasco 1999; Tornell and Lane 1999). The groups might include spending ministries, regional governors, or city mayors, all of whom have with legitimate claims on public funds. After all, it is the job of cabinet ministers or subnational government agencies to make a case for additional funding for their own departments or areas. However, since the tax base

is shared while benefits of these projects accrue disproportionately to members of a particular group, each will still bid for more funds than is efficient, even though they recognize that their own projects have low returns and displace higher-return commonly owned public assets.

The problem is exacerbated by weak government capacity. Limited capacity to appraise and implement projects means that, the larger are revenues, the greater the proportion of bad projects that get accepted. Limited capacity to police spending means that as revenues increase, corruption increases more than proportionately; the positive relationship between resource abundance and levels of corruption is established in a number of studies (for example, Ades and Di Tella 1999; Leite and Weidman 1999). More broadly, resource revenues enable government to postpone economic reforms. Normally, if a government embarks upon an economic strategy that imposes large costs across its economy, change will eventually be forced upon the government by the decline of revenue. However, resource rents provide a cushion. Chauvet and Collier (2008) find that resource rents significantly reduce the speed of exit from dysfunctional policies, as measured by a low score on the World Bank's Country Policy and Institutional Assessment (CPIA) indicator.

How might these failures of fiscal discipline be countered? Managing expectations can help. There is usually little public or even official knowledge of the actual scale of resource revenues, and there is often a tendency to overestimate wealth and ignore trade-offs. Combine these factors with individuals' uncertainty about how or when they might see benefits, and it is unsurprising that inefficient transfer mechanisms—such as fuel subsidies—become extremely hard to reverse. The implication is that transparency is important, so that revenue flows and spending are visible to parliament and civil society.

A centralized system of financial control and authority can help with fiscal discipline, too. In principle, a central finance ministry can balance the competing demands of spending ministries, regional authorities, or other lobby groups. However, to play this role effectively the finance ministry must have control of incoming revenues, along with sufficient political will and power to resist competing demands. Botswana has had a powerful Ministry of Finance and Development Planning that has controlled and prioritized spending. It recognized that, particularly after its diamond discoveries, the main constraint was not finance, but rather implementation capacity. Foreign expertise was brought into the ministry to support implementation of rigorous project appraisal and cost-benefit analyses of public spending (Criscuolo undated; Criscuolo and Palmade 2008). In many other countries control is diffuse, often with national resource companies engaging in off-budget quasi-fiscal activities, such as running fuel subsidy or even social welfare programs. An extreme example is Venezuela where, in the mid 2000s, the national oil company PDVSA was spending 40 percent more on social programs than on its oil and gas operations (McPherson 2010).

The hand of the finance ministry can be strengthened by a "fiscal constitution" that imposes ceilings on public spending from resource revenues or public funds more generally (Poterba and von Haagen 1999; Primo 2007). Many resource-rich countries

have put fiscal rules in place, assigning shares of resource revenue to different funds, some domestic and some offshore. Experience is country-specific, but overall an IMF study concluded that there is no evidence that fiscal rules have had an effect on fiscal outcomes (Ossowski, Villafuerte, Medas, and Thomas 2008). Amongst resource-rich countries, Chile's fiscal constitution has been largely successful (Frankel 2011). As a counterexample, Ghana established funds in its Petroleum Revenue Management Act of 2011 and deposited some revenues in Heritage and Stabilization funds. But strong fiscal rules governing the small resource sector coexisted with lax budget rules elsewhere, allowing government current spending to increase dramatically, creating fiscal and external deficits that necessitated an IMF rescue program early in 2015 (IMF 2015).

Spending pressures are magnified by the prevalence of *patronage politics*, which distorts public spending to favor partisan groups. This distortion can have an intertemporal dimension, with the current government spending heavily on its favored group and passing on too little capital (or too high levels of debt) to the next government (Alesina and Tabellini 1990; Alesina and Drazen 1991). Revenues can be used by the incumbent government to increase the probability of staying in power. For example, the government can initiate spending which it can credibly commit to continue if it wins the election but which the opposition party would cancel. Public sector employment in which the government hires its supporters is a good example. Robinson and Torvik (2005), and Robinson, Torvik, and Verdier (2005, 2006) show that it is possible that a substantial fraction of resource revenues are dissipated this way and, if public employment is of lower social value than the alternative, real income can be reduced by a resource windfall.

Resource politics plays out in democracies, and also enables autocrats to remain in power. Ross (2012) shows that the democratic transitions that affected many countries in the 1980s and 1990s left most oil states untouched, a finding that is not due to simply the high incidence of autocracy in the Middle East.

Wealth from natural resources can also increase *conflict risk*. As case studies (Klare 2001) and statistical analyses (Fearon and Laitin 2003; Collier and Hoeffler 2004) show, it can provide both the motive and the means for insurgency, while also providing funds for the government (or those with access to government funds) to equip itself to retain power. Besley and Persson (2008) find that an increase in commodity prices (a measure of resource revenues exogenous to each country) significantly increases the incidence of conflict. Collier, Hoeffler, and Söderbom (2004) investigate the duration of civil wars and find that a price increase of the commodities that a country exports significantly reduces the chance that a war will be settled. Dube and Vargas (2013) add an interesting twist: using regional data for Colombia, they find that higher oil prices increased conflict while increases in coffee prices had the opposite effect, possibly by increasing the value of devoting labor time to coffee production.

While actual conflict can be devastating, the threat of conflict also matters in many situations where conflict does not actually occur. Resource rents alter the leader's probability of staying in power, and hence the economic, political, and

military strategies that are pursued (Caselli and Cunningham 2009). This is evident in the responses of countries to the threat of conflict. In Malaysia, past experience of ethnic conflict led the government to commit to inclusive growth (discussed further in the following section). In Nigeria, the experience of Biafra's attempted secession in 1967 led the country to fracture into 36 separate states. Each is militarily incapable of seceding from the 35 others but, by reducing central authority, the fracture has also diminished the effectiveness of resource governance—for example, by limiting the implementation of the national Fiscal Responsibility Act.

Natural Resources and Economic Structure

Dutch Disease

Resource revenues alter the structure of the economy, particularly in countries where they constitute a share of exports at the levels indicated in Figure 1. Other tradable activities will be displaced, partly as factors of production are drawn into resource extraction, and partly as they are employed to meet increased demand for nontradables arising from domestic spending of resource revenues (Corden and Neary 1982). This phenomenon was christened the “Dutch disease,” following the experience of Holland with development and export of its natural gas resources in the 1960s and 1970s. This changing structure of the economy has a counterpart in the balance of payments, as higher resource exports lead to some combination of higher imports or lower nonresource exports together with (depending on elasticities) an appreciation of the real exchange rate.

Empirical work establishes the presence of these effects. Adverse effects on nonresource tradable sectors are documented for many countries—for example, the collapse of Nigerian agriculture (Ross 2012)—and cross-country empirical work confirms that resource exports are associated with smaller tradable goods sectors. Brahmhatt, Canuto, and Vostroknutova (2010) find that countries in which the resource sector accounts for more than 30 percent of GDP have a nonresource tradable sector 15 percentage points lower than the norm, while Ismail (2010) finds that a 10 percent increase in a measure of oil revenues is associated with an average 3.4 percent fall in value added across manufacturing.

In itself, structural change in an economy is not necessarily a problem, but it can have a negative effect on real incomes if it interacts with market failures. In particular, if the nonresource tradable sector has increasing returns (either static, or as a result of dynamic learning-by-doing), then the effect may be to reduce the level and growth of real income (Torvik 2001; Krugman 1987; Sachs and Warner 1995). Research suggests that the level and composition of exports is particularly important for economic growth (Jones and Olken 2008; Hausmann, Pritchett, and Rodrick 2005), and there is evidence that resource exports crowd out the sort of other exports that drive growth. In Harding and Venables (forthcoming), we study this by looking at the effects of resource exports on different elements of the balance of payments, finding that each \$1 of resource exports typically displaces

74 cents of nonresource exports (while drawing in 23 cents of imports and having a negligible effect on the capital account). Within nonresource exports, manufacturers are more prone to crowding out than agriculture or services. Ross (2012) makes the further point that the structure of employment in resource-rich countries has had an adverse effect on women's employment opportunities and wider emancipation.

How can these adverse effects be avoided? One route is economic management to mitigate these effects and another is proactive policy to grow other sectors of the economy. We discuss each in turn.

Mitigation

Whether a resource-driven spending boom displaces other economic activity or expands activity as a whole depends on the supply response of the economy. An economy in which labor is fully employed is likely to experience a contraction of its nonresource tradable sector as employment shifts to meet expanding demand for nontradables. However, in a developing country with a substantial quantity of un- (or under)employed labor, booming demand for nontradables can draw labor into employment. This mitigates the Dutch disease and, with this increase in employment and income, the balance of payments will adjust to higher resource exports less by a reduction in nonresource exports and more by drawing in additional imports.

This mitigation is more likely to work if two conditions are met. First, the economy has to be flexible and not encounter other supply bottlenecks. This means openness to trade, ease of entry of new firms, labor market flexibility, and ease of migration to urban centres. Potential bottlenecks—such as in urban and transport infrastructure, power supply, and labor skills—need to be identified and addressed in the early stages of a resource boom, measures referred to by Collier (2010) as “investing-in-investing.” Second, because these adjustments necessarily take time, spending should not ramp up too rapidly, suggesting use of a “parking fund” for resource revenues as discussed above.

A further issue arises as some economic variables may adjust faster than others—especially the exchange rate. In a flexible exchange rate regime, expectations of a future appreciation may cause an earlier appreciation, with the exchange rate jumping up at the date of resource discovery and possibly before significant spending effects are felt. The decline of tradable sectors may then precede the expansion of nontradable sectors, creating recession at least in areas of the economy not directly experiencing resource-related activity. An example is Zambia in the period 2005–2006, which experienced capital inflow due to a high nominal return on government debt and a high copper price, leading to abrupt appreciation and damage to nonresource exports (Adam and Simposa 2011). This was also part of the UK's experience with North Sea oil (Eastwood and Venables 1982). At a cross-country level, the empirical work of Arezki, Ramey, and Sheng (2015), studying the effect of giant oil discoveries, finds that the discoveries alone have an initial negative effect on employment, investment, and GDP. The appropriate

response to these expectations-driven changes is monetary and exchange rate policy that moderates upwards pressure on the exchange rate.

In summary, mitigating adverse structural change requires fiscal policies that smooth spending (and thus involve parking revenues offshore), microeconomic policies to increase the flexibility of the economy and anticipate bottlenecks, and monetary or exchange rate policies that control appreciation of the currency.

Diversification

The call for policies to grow nonresource sectors and thereby diversify the economy is widely heard, yet few resource-rich countries have been successful in doing so. What can be and has been done? Resource revenues are a source of public funds and, as is widely recommended, these can be used to fund public investments complementary to private investment, such as investment in human capital, in public infrastructure, and possibly also in utilities. As discussed above, many resource-rich economies have missed this opportunity.

Other policies can target specific sectors or firms. A frequent policy has been to promote sectors with backwards and forward linkages with the resource sector. Backward linkages arise from the resource sector's use of local inputs, and studies show that the local effects of such spending are significant, although quantitatively small (Aragón and Rud 2013; Cust and Poelhekke 2015). A number of countries have a domestic content requirement policy to strengthen these backward linkages, but such rules have generally not led to transformative growth of new activities (see *The Economist* 2015 for a discussion of Brazil's experience with Petrobras). Rigid rules are gamed, and in any case do not come free; part of any cost increase they cause is borne by the host country through reduced tax and revenue receipts. There are a few exceptions in which internationally competitive sectors have grown in this way, but the examples of the Norwegian marine engineering sector or of internationally competitive national resource companies (like Saudi Aramco or Petronas) are hard to replicate in lower-income countries. Promising new initiatives offer a more flexible approach in which natural resource firms work closely with selected local firms in order to raise their capability to qualified supplier status (for example, in meeting engineering specifications), thereby raising their potential to compete on world markets (Sutton 2014).

Forward linkages involve further processing of the natural resource either for local use or prior to export. The viability of this approach depends on the wider capabilities and comparative advantage of the local economy. Resource-rich economies have not had much success in trying to move into highly capital-intensive sectors such as petrochemicals or steel plants. However, domestic use or processing of the resource makes more sense if shipping costs are high, so there is a wedge between the world price and the domestic price. Historical transport costs meant that 19th-century economic development was often close to natural sources of coal and iron ore. In the modern economy, shipping costs are relatively low for oil and most bulk minerals, but much higher for natural gas. While the capital costs of large-scale natural gas developments (such as the offshore developments planned

in East Africa) can be met only by the prospect of export sales, the price wedge means that some fraction of output should be used domestically, which raises the important prospect of relatively cheap electricity supply for the producing region.

Governments have also pursued diversification strategies by using revenues to support investment sectors not directly linked to resources, either through development banks or direct government industrial policy. As with industrial policy in other contexts, there are numerous failures and a few successes. Malaysia offers an example of success, as does Chile. Following ethnic riots in 1969, the Malaysian government committed to using economic development to narrow racial economic inequalities (Yusof 2011). A strong central government implemented a series of development plans, a centerpiece of which was to use resource revenues (in particular oil revenues, which grew rapidly from the mid 1970s) to diversify the economy. Within agriculture, investment programs raised productivity and implemented a transition from rubber to palm oil production. In manufacturing, the economy was open to trade and foreign direct investment, and an industrial policy was pursued (including infrastructure development, particularly in special economic zones) that succeeded in developing a range of labor-intensive activities including the electronics sector. Macroeconomic stability was maintained by fiscal prudence and some element of luck, as when rapidly increasing oil volumes offset the price fall of the 1980s. Elements of Malaysia's success are due to its location in a booming region and its commodity mix (rubber and tin as well as oil). But most importantly, the government recognized that inclusive economic growth was necessary for future stability, and government capacity was sufficient to implement this policy effectively.

Concluding Comments and Future Prospects

It is straightforward to catalog the failures of resource-rich countries. Some have failed to attract investors and thus failed to receive much income from their deposits of nonrenewable resources. Many have failed to use resource revenues to finance investment at levels sufficient to support continuing nonresource growth and, with the additional impact of resource revenues on volatility and Dutch disease, other potentially dynamic sectors of the economy have failed to develop. While there is heterogeneity in country experience, underlying these symptoms are two common causes. One is the technical difficulty of handling resource revenues that are risky, volatile, and time-limited. The other is that governance has been unable to resist short-run spending pressures and commit to long-run investment and growth strategies.

What recent changes have affected the performance of resource-rich economies, and what are the future prospects?

Recent decades have seen significant improvements in aspects of governance in resource-rich countries. The quality of economic management as a whole has improved, in Africa in particular, as witnessed by improved scores on the World Bank's Country Policy and Institutional Assessment indicator, and by much

improved economic performance, with resource-rich countries growing at over 5.5 percent annually in the period 2000–2014, more than twice the rate of the 1980s and 1990s (based on data from the *World Development Indicators*). The resource sector has seen several major initiatives to improve governance. The Extractive Industries Transparency Initiative, launched in 2003, is now implemented by 48 countries, with 31 fully compliant and signed up to audit their resource revenues in a transparent manner (for background, see <https://eiti.org/>). Codes of best practice have been drawn up by international experts and adopted by governments and regional bodies (an example is the Natural Resource Governance Institute, <http://www.resourcegovernance.org/>). There is a growing realization that if resource-based spending is to be controlled successfully, there has to be not just formal processes of transparency or fiscal rules, but also citizen awareness and understanding of the possibilities and problems created by resource discoveries. Countries that have created a strong narrative of what can (and cannot) be done with resource revenues, such as Malaysia and Botswana, have found such citizen expectations to be self-fulfilling, as citizens come to see the benefits of improved economic performance, and demands for spending outside the narrative are harder to justify and easier to resist.

Improved governance, in combination with the boom in commodity prices in the first decade of the 2000s, has promoted exploration and led to new resource discoveries, notably in Africa. New players have entered resource extraction and trade, in particular China. Accompanying these changes has been the increased use of “resource for infrastructure” deals, some of which are barter deals, and others part of wider trade and investment agreements (Halland, Beardsworth, Land, and Schmidt 2014). Bräutigam and Gallagher (2014) estimate that, between 2000 and 2011, China committed \$80 billion of resource-backed loans to Latin America and \$53 billion to Africa—of which \$13 billion is to Angola alone. The loans to Angola principally finance infrastructure, but also include school and hospital projects. Much of the construction work is done using Chinese workers and inputs and repayments are made in oil, specified in quantity, not value terms (Cassel, de Candia, and Liberatore 2010).

Such deals have potential benefits. They are a commitment to transform subsoil assets into surface assets, rather than into current consumption, and to do so in a manner that is relatively rapid. However, the devil is in the details. The terms and conditions of these contracts are generally not transparent and some appear, on close investigation, to have offered poor terms to the host economy. The quality, design, and appropriateness of projects are sometimes questionable. A 2008 agreement between the Democratic Republic of the Congo, China Exim Bank, and two Chinese construction companies worth up to \$6 billion and based on giving copper and cobalt in return for infrastructure, has been criticized for lack of transparency and scrutiny, questionable project selection, and no process for assessing value for money (Global Witness 2011). To deliver their potential benefits, resource for infrastructure deals need to develop scrutiny procedures that ensure value is being derived.

Finally, future prospects for resource-rich economies are dominated by the commodity price fall of 2014–2015, viewed by some as the end of a “super-cycle” of commodity prices (for example, Goldberg 2015; Bershidsky 2015). The combination of fundamental supply-side changes in energy markets (like fracking in oil markets) and the growing efforts at conserving the use of fossil fuels in response to concerns over climate change make it likely that, at least for hydrocarbons, prices will stay low. For resource-rich countries that have been accustomed to high commodity prices in the last 10–15 years, these changes are large negative shocks. Many will have to adjust to fill two gaps, one in the public finances and the other in the balance of payments. It is to be hoped that these adjustments—increasing fiscal discipline and enabling a stronger nonresource export sector to drive growth—may improve the chances of benefiting from continuing, if reduced, revenues from extraction of nonrenewable resources.

■ *Thanks to Jim Cust, Philip Daniel, Gordon Hanson, Enrico Moretti, Timothy Taylor, and Gerhard Toews for helpful comments, and to Paul Collier and Rick van der Ploeg for many valuable discussions of the issues.*

References

- Adam, Christopher, and Anthony M. Simpasa. 2011. “Copper Mining in Zambia: From Collapse to Recovery.” In *Plundered Nations? Successes and Failures in Natural Resource Extraction*, edited by Paul Collier and Anthony J. Venables. London: Palgrave Macmillan.
- Ades, Alberto, and Rafael Di Tella. 1999. “Rents, Competition, and Corruption.” *American Economic Review* 89(4): 982–93.
- Alesina, Alberto, and Allan Drazen. 1991. “Why Are Stabilizations Delayed?” *American Economic Review* 81(5): 1170–88.
- Alesina, Alberto, and Guido Tabellini. 1990. “A Positive Theory of Fiscal Deficits and Government Debt.” *Review of Economic Studies* 57(3): 403–414.
- Aragón, Fernando M., and Juan Pablo Rud. 2013. “Natural Resources and Local Communities: Evidence from a Peruvian Gold Mine.” *American Economic Journal: Economic Policy* 5(2): 1–25.
- Arezki, Rabah, Prakash Loungani, Frederick van der Ploeg, and Anthony J. Venables. 2014. “Understanding International Commodity Price Fluctuations.” *Journal of International Money and Finance* 42: 1–8.

- Arezki, Rabah, Valerie A. Ramey, and Liugang Sheng.** 2015. "News Shocks in Open Economies: Evidence from Giant Oil Discoveries." NBER Working Paper 20857.
- Auty, Richard M.** 1993. *Sustaining Development in Mineral Economies: The Resource Curse Thesis.* London and New York: Routledge.
- Bershidsky, Leonid.** 2015. "Maybe the Commodities Supercycle Is Actually Real." *Bloomberg View*, August 7. <http://www.bloombergvew.com/articles/2015-08-07/maybe-the-commodities-supercycle-is-actually-real>.
- Besley, Timothy J., and Torsten Persson.** 2008. "The Incidence of Civil War: Theory and Evidence." NBER Working Paper 14585.
- Bhattacharyya, Sambit, and Paul Collier.** 2014. "Public Capital in Resource Rich Economies: Is There a Curse?" *Oxford Economic Papers* 66(1): 1–24.
- Bornhorst, Fabian, Sanjeev Gupta, and John Thornton.** 2009. "Natural Resource Endowment and the Domestic Revenue Effort." *European Journal of Political Economy* 25(4): 439–46.
- Brahmbhatt, Milan, Otaviano Canuto, and Ekaterina Vostroknutova.** 2010. "Dealing with Dutch Disease." *Economic Premise*, issue 16, World Bank.
- Bräutigam, Deborah, and Kevin P. Gallagher.** 2014. "Bartering Globalization: China's Commodity-Backed Finance in Africa and Latin America." *Global Policy* 5(3): 346–52.
- Caselli Francesco, and Tom Cunningham.** 2009. "Leader Behaviour and the Natural Resource Curse." *Oxford Economic Papers* 61(4): 628–50.
- Caselli Francesco, and Guy Michaels.** 2013. "Do Oil Windfalls Improve Living Standards: Evidence from Brazil." *American Economic Journal: Applied Economics* 5(1): 208–38.
- Cassel, Cosima, Giuseppe de Candia, and Antonella Liberatore.** 2010. "Building African Infrastructure with Chinese Money." <http://www.barcelonagse.eu/tmp/pdf/ITFD10Africa.pdf>.
- Chauvet, Lisa, and Paul Collier.** 2008. "What Are the Preconditions for Turnaround in Failing States." *Journal of Conflict Management and Peace Science* 25(4): 332–48.
- Coady, David, Robert Gillingham, Rolando Ossowski, John Piotrowski, Shamsuddin Tareq, and Justin Tyson.** 2010. "Petroleum Product Subsidies: Costly, Inequitable and Rising." Staff Position Note 10/05, International Monetary Fund, Washington, DC.
- Coady, David, Ian Parry, Louis Sears, and Baoping Shang.** 2015. "How Large Are Global Energy Subsidies." IMF Working Paper 15/105.
- Collier, Paul.** 2007. *The Bottom Billion: Why the Poorest Countries Are Failing and What Can Be Done About It.* Oxford University Press.
- Collier, Paul.** 2010. *The Plundered Planet: Why We Must—And How We Can—Manage Nature for Global Prosperity.* Oxford University Press.
- Collier, Paul, and Anke Hoeffler.** 2004. "Greed and Grievance in Civil War." *Oxford Economic Papers* 56(4): 563–95.
- Collier, Paul, Anke Hoeffler, and Måns Söderbom.** 2004. "On the Duration of Civil War." *Journal of Peace Research* 41(3): 253–73.
- Collier, Paul, and Anthony J. Venables, eds.** 2011. *Plundered Nations? Successes and Failures in Natural Resource Extraction.* London: Palgrave Macmillan.
- Corden, W. Max, and J. Peter Neary.** 1982. "Booming Sector and De-industrialisation in a Small Open Economy." *Economic Journal* 92(368): 825–48.
- Council on Foreign Relations.** 2015. "A Primer on Nigeria's Oil Bunkering." <http://blogs.cfr.org/campbell/2015/08/04/a-primer-on-nigerias-oil-bunkering/>.
- Cramton, Peter.** 2010. "How Best to Auction Natural Resources." In *The Taxation of Petroleum and Minerals: Principles, Problems and Practice*, edited by Philip Daniel, Michael Keen, and Charles McPherson. London and New York: Routledge.
- Criscuolo, Alberto.** No date. "Briefing Note: Botswana." World Bank.
- Criscuolo, Alberto, and Vincent Palmade.** 2008. "Reform Teams." *Public Policy for the Private Sector*. Note no. 318, World Bank.
- Cust, James, and Torfinn Harding.** 2013. "Institutions and the Location of Oil Exploration." Oxcarre Research Paper 127, Oxford.
- Cust, James, and Steven Poelhekke.** 2015. "The Local Economic Impacts of Resource Extraction." *Annual Review of Resource Economics* 7: 251–68.
- Dabla-Norris, Era, Jim Brumby, Annette Kyobe, Zac Mills, and Chris Papageorgiou.** 2012. "Investing in Public Investment: An Index of Public Investment Efficiency." *Journal of Economic Growth* 17(3): 235–66.
- Daniel, Philip, Michael Keen, and Charles McPherson, eds.** 2010. *The Taxation of Petroleum and Minerals: Principles, Problems and Practice.* New York: Routledge.
- Daniel, Philip, and Emil M. Sunley.** 2010. "Contractual Assurances of Fiscal Stability." In *The Taxation of Petroleum and Minerals: Principles, Problems and Practise*, edited by Philip Daniel, Michael Keen, and Charles McPherson, 405–24. New York: Routledge.
- Dube, Oeindrila, and Juan F. Vargas.** 2013. "Commodity Price Shocks and Civil Conflict: Evidence from Colombia." *Review of Economic Studies* 80(4): 1384–1421.
- Eastwood, Robert K., and Anthony J. Venables.** 1982. "The Macroeconomic Implications of

a Resource Discovery in an Open Economy.” *Economic Journal* 92(366): 285–99.

Economist, The. 2014 “Crying Foul in Guinea.” December 6.

Economist, The. 2015. “Whose Oil in Brazil.” February 14.

Esanov, Akram, and Karlygash Kuralbeyevea. 2011. “Kazakhstan: Public Saving and Private Spending.” In *Plundered Nations? Successes and Failures in Natural Resource Extraction*, edited by Paul Collier and Anthony J. Venables. London: Palgrave Macmillan.

Fearon, James D., and David D. Laitin. 2003. “Ethnicity, Insurgency, and Civil War.” *American Political Science Review* 97(1): 75–90.

Frankel, Jeffrey A. 2011. “How Can Commodity Exporters Make Fiscal and Monetary Policy Less Procyclical?” Chap. 10 in *Beyond the Curse: Politics to Harness the Power of Natural Resources*, edited by Rabah Arezki, Thorvaldur Gylfason, and Amadou Sy. Washington, DC: IMF.

Gauthier, Bernard, and Albert Zeufack. 2011. “Governance and Oil Revenues in Cameroon.” In *Plundered Nations? Successes and Failures in Natural Resource Extraction*, edited by Paul Collier and Anthony J. Venables. London: Palgrave Macmillan.

Global Witness. 2011. “China and Congo: Friends in Need.” https://www.globalwitness.org/sites/default/files/library/friends_in_need_en_lr.pdf.

Goldberg, Shelley. 2015. “The End of the Commodity Super Cycle.” *Wall Street Daily*, September 1. <http://www.wallstreetdaily.com/2015/09/01/commodity-prices-super-cycle>.

Gupta, Sanjeev, Alex Segura-Ubierno, and Enrique Flores. 2014. “Direct Distribution of Resource Revenues: Worth Considering?” IMF Staff Discussion Note SDN/14/05.

Halland, Håvard, John Beardsworth, Bryan Land, and James Schmidt. 2014. *Resource Financed Infrastructure: A Discussion on a New Form of Infrastructure Financing*. Washington DC: World Bank.

Harding, Torfinn, and Anthony J. Venables. Forthcoming. “The Implications of Natural Resource Exports for Non-Resource Trade.” *IMF Economic Review*.

Hausmann, Ricardo, Land Pritchett, and Dani Rodrik. 2005. “Growth Accelerations.” *Journal of Economic Growth* 10(4): 303–29.

Hendricks, Kenneth, and Robert H. Porter. 2014. “Auctioning Resource Rights.” *Annual Review of Resource Economics* 6: 175–90.

International Monetary Fund (IMF). 2011. “Nigeria: 2010 Article IV Consultation.” <http://www.imf.org/external/pubs/ft/scr/2011/cr1157.pdf>.

International Monetary Fund (IMF). 2012a.

“Macroeconomic Policy Frameworks for Resource-Rich Developing Countries.” Policy paper for the Executive Board. Washington, DC.

International Monetary Fund (IMF). 2012b. “Macroeconomic Policy Frameworks for Resource-Rich Developing Countries—Background Paper 1—Supplement 1.” Washington, DC.

International Monetary Fund (IMF). 2015. “IMF Approves US\$918 Million ECF Arrangement to Help Ghana Boost Growth, Jobs and Stability.” Press Release No. 15/159. April 3. <https://www.imf.org/external/np/sec/pr/2015/pr15159.htm>.

Ismail, Kareem. 2010. “The Structural Manifestation of the ‘Dutch Disease’: The Case of Oil-Exporting Countries.” Working Paper 10/103, International Monetary Fund, Washington, DC.

Jones, Benjamin E., and Benjamin A. Olken. 2008. “The Anatomy of Start-Stop Growth.” *Review of Economics and Statistics* 90(3): 582–87.

Katsouris, Christina, and Aaran Sayne. 2013. “Nigeria’s Criminal Crude: International Options to Combat the Export of Stolen Oil.” Programme Report, Chatham House, London.

Klare, Michael. 2001. *Resource Wars: The New Landscape of Global Conflict*. New York: Metropolitan Books.

Krugman, Paul. 1987. “The Narrow Moving Band, the Dutch Disease, and the Competitive Consequences of Mrs. Thatcher: Notes on Trade in the Presence of Dynamic Scale Economies.” *Journal of Development Economics* 27(1–2): 41–55.

Leite, Carlos, and Jens Weidmann. 1999. “Does Mother Nature Corrupt? Natural Resources, Corruption, and Economic Growth.” International Monetary Fund Working Paper 99/85.

McPherson, Charles. 2010. “State Participation in the Natural Resource Sectors: Evolution, Issues and Outlook.” In *The Taxation of Petroleum and Minerals: Principles, Problems and Practise*, edited by Philip Daniel, Michael Keen, and Charles McPherson. London and New York: Routledge and IMF.

Mehlum, Halvor, Karl Moene, and Ragnar Torvik. 2006. “Institutions and the Resource Curse.” *Economic Journal* 116(508): 1–20.

Mullins, Peter. 2010. “International Tax Issues for the Resources Sector.” Chapter 13 in *The Taxation of Petroleum and Minerals: Principles, Problems and Practise*, edited by Philip Daniel, Michael Keen, and Charles McPherson. London and New York: Routledge and IMF.

Ossowski, Rolando, Mauricio Villafuerte, Paulo A. Medas, and Theo Thomas. 2008. “Managing the Oil Revenue Boom: The Role of Fiscal Institutions.” IMF Occasional Paper 260, International Monetary Fund.

Poterba, James, and Jürgen von Haagen, eds.

1999. *Fiscal Rules and Fiscal Performance*. University of Chicago Press.
- Primo, David M.** 2007. *Rules and Restraint: Government Spending and the Design of Institutions*. University of Chicago Press.
- Robinson, James A., and Ragnar Torvik.** 2005. "White Elephants." *Journal of Public Economics* 89(2–3): 197–210.
- Robinson, James A., Ragnar Torvik, and Thierry Verdier.** 2006. "Political Foundations of the Resource Curse." *Journal of Development Economics* 79(2): 447–68.
- Ross, Michael L.** 2012. *The Oil Curse: How Petroleum Wealth Shapes the Development of Nations*. Princeton: Princeton University Press.
- Sachs, Jeffrey D., and Andrew M. Warner.** 1995. "Natural Resource Abundance and Economic Growth." NBER Working Paper 5398.
- Sachs, Jeffrey D., and Andrew M. Warner.** 1997. "Sources of Slow Growth in African Economies." *Journal of African Economies* 6(3): 335–76.
- Smith, Brock.** 2015. "The Resource Curse Exorcised: Evidence from a Panel of Countries." *Journal of Development Economics* 116: 57–73.
- Sutton, John.** 2014. "Gains from the Natural Gas: Local Content and Tanzania's Industrial Development." The Seventh Gilman Rutihinda Memorial Lecture, Delivered at the Bank of Tanzania, June 10, 2014. International Growth Centre, London School of Economics, <http://www.theigc.org/wp-content/uploads/2014/08/Sutton-2014-Gilman-Rutihinda-Memorial-Lecture-Speech.pdf>.
- Tornell, Aaron, and Philip R. Lane.** 1999. "The Voracity Effect." *American Economic Review* 89(1): 22–46.
- Torvik, Ragnar.** 2001. "Learning by Doing and the Dutch Disease." *European Economic Review* 45(2): 285–306.
- van der Ploeg, Frederick, and Steven Poelhekke.** 2009. "Volatility and the Natural Resource Curse." *Oxford Economic Papers* 61(4): 727–60.
- van der Ploeg, Frederick, and Anthony J. Venables.** 2011. "Harnessing Windfall Revenues: Optimal Policies for Resource-Rich Developing Economies." *Economic Journal* 121(551): 1–31.
- Velasco, Andrés.** 1999. "A Model of Endogenous Fiscal Deficit and Delayed Fiscal Reforms." Chap. 2 in *Fiscal Rules and Fiscal Performance*, edited by James M. Poterba and Jürgen Von Hagen. Chicago University Press.
- World Bank.** 2011. *The Changing Wealth of Nations: Measuring Sustainable Development in The New Millennium*. World Bank: Washington DC.
- World Development Indicators.** No date. <http://data.worldbank.org/data-catalog/world-development-indicators>.
- Yeung, Ying, and Stephen Howes.** 2015. "Resources to Cash: A Cautionary Tale from Mongolia." *Devpolicyblog*, Development Policy Centre, October 22. <http://devpolicy.org/resources-to-cash-a-cautionary-tale-from-mongolia-20151022/>.
- Yusof, Zainal Aznam.** 2011. "The Developmental State: Malaysia." In *Nations? Successes and Failures in Natural Resource Extraction*, edited by Paul Collier and Anthony J. Venables. London: Palgrave Macmillan.

This article has been cited by:

1. Željko Bogetić, Dominik Naehrer. 2024. Corruption and government revenue: Evidence of a non-linear relationship driven by crises. *Journal of Applied Economics* 27:1. . [[Crossref](#)]
2. Katharina Salomea Hemmler, Kofi Yeboah Asare, Emmanuel Yamoah Tenkorang, Andreas Buerkert. 2024. Sand mining deteriorates soil fertility and farming livelihoods around Accra, Ghana. *Scientific Reports* 14:1. . [[Crossref](#)]
3. Qiong Chen, Giray Gozgor, Hemachandra Padhan, Weibai Liu, Mantu Kumar Mahalik, Henri Njangang, Sujit Kumar Pruseth. 2024. How does energy resource diversification affect economic development? Evidence from BRICS economies. *Resources Policy* 98, 105286. [[Crossref](#)]
4. Chien-Chiang Lee, Chengnan Xuan, Fuhao Wang. 2024. Natural resources and green economic growth: The role of artificial intelligence. *Resources Policy* 98, 105322. [[Crossref](#)]
5. Young Kyu Hwang, Ángeles Sánchez Díez, Roula Inglesi-Lotz. 2024. The effects of critical mineral endowments on green economic growth in Latin America. *Resources Policy* 98, 105355. [[Crossref](#)]
6. M. H. Davies, M. Schröder. 2024. A simple model of internal and external balance for resource-rich developing countries. *Australian Journal of Agricultural and Resource Economics* 37. . [[Crossref](#)]
7. Paul Berbée, Sebastian Till Braun, Richard Franke. 2024. Reversing fortunes of German regions, 1926–2019: Boon and bane of early industrialization?. *Journal of Economic Growth* 136. . [[Crossref](#)]
8. Jang Ping Thia, Xinyu Kong, Jiaqi Su. 2024. Do unpriced natural and ecosystem capital affect economic output? Growth regression analyses. *Sustainable Development* 32:5, 4959–4976. [[Crossref](#)]
9. Chaowen Bi, YuFei Gan, Weizheng Wang, Pengcheng Xue. 2024. COP27 Perspective of Food, Land Resources and Digitalization for Sustainable Economy: Novel Evidence From Lower-Middle-Income Countries. *Land Degradation & Development* 11. . [[Crossref](#)]
10. Valeria Lauria, Justin Yifu Lin, Xin Wang, Yawen Zheng. 2024. Development strategy, infrastructure, and premature deindustrialization: Comparing Asian, African, and Latin American economies. *Economics & Politics* 53. . [[Crossref](#)]
11. Charan van Kreveld, Marlou Peters. 2024. How natural resource rents, exports, and government resource revenues determine Genuine Savings: Causal evidence from oil, gas, and coal. *World Development* 181, 106657. [[Crossref](#)]
12. Thorsten Janus. 2024. Does export underreporting contribute to the resource curse?. *World Development* 181, 106681. [[Crossref](#)]
13. Ainsley Elbra. 2024. Arc of avoidance: An analytical framework for analysing mining companies' actions in the global South. *Resources Policy* 96, 105232. [[Crossref](#)]
14. Mehmet Akif Destek, Tanaya Saha, Gamze Destek, Avik Sinha. 2024. The resource-based Kuznets curve hypothesis: An empirical exploration. *Geoscience Frontiers* 15:5, 101841. [[Crossref](#)]
15. Nirvana Satnarine-Singh, Roger Hosein, George Saridakis. 2024. Structural change and export diversification: A comparison of CARICOM's position. *The Journal of International Trade & Economic Development* 33:6, 1163–1189. [[Crossref](#)]
16. Pierre Mandon, Vincent Nossek, Diderot Sandjong Tomi. 2024. Stuck in a Fragility Trap: The Case of the Central African Republic Civil War. *Defence and Peace Economics* 191, 1–34. [[Crossref](#)]
17. Justice Mensah, John Oti Amoah. 2024. Impact of Stone Quarrying on Sustainable Livelihoods and Environment in Selected Communities in Ghana: implications for the Sustainable Development Goals. *Society & Natural Resources* 37:8, 1140–1159. [[Crossref](#)]
18. Iasmin Goes, Stephen B. Kaplan. 2024. Crude credit: The political economy of natural resource booms and sovereign debt management. *World Development* 180, 106645. [[Crossref](#)]

19. Zhiyong Zhou, Dengjie Long, Yongrong Xin. 2024. Combining the management of natural resources with the management of environmental resources: Modeling the impact of high-tech and ICT service export. *Resources Policy* **95**, 105192. [[Crossref](#)]
20. Xun Cao, Xin Shen, Qiao Liu. 2024. Mechanism of aquaculture competitiveness in China. *Aquaculture Reports* **37**, 102195. [[Crossref](#)]
21. Kazi Sohag, Rogneda Vasilyeva, Valentin Voytenkov, Shawkat Hammoudeh. 2024. Natural resource extraction and economic diversification in Russian regions: Application of dynamic DID. *Energy Economics* **136**, 107759. [[Crossref](#)]
22. Aqsa Nazir, Munawar Iqbal, Usman Mehmood, Zia Ul Haq, Asim Daud Rana, Hind Aloffaysan. 2024. How mineral resources rent collaborate with consumer price index, environmental policies, and economic performance in Türkiye and India: Evidence from artificial neural networks and machine learning. *Natural Resources Forum* **3**. . [[Crossref](#)]
23. Carlo Pietrobelli, Beatriz Calzada Olvera, Michiko Iizuka, Caio Torres Mazzi. 2024. Suppliers' entry, upgrading, and innovation in mining GVCs: lessons from Argentina, Brazil, and Peru. *Industrial and Corporate Change* **33:4**, 922-939. [[Crossref](#)]
24. Franziska M. Hoffart, Franziska Holz. 2024. Energy asset stranding in resource-rich developing countries and the just transition - A framework to push research frontiers. *Frontiers in Environmental Economics* **3**. . [[Crossref](#)]
25. Sampson Vivian Esumanba, Gyamfi Emmanuel, Atsu Francis, Nantogmah Danaa, Amoh John Kwaku. 2024. Political Commitment to resource management, the African case. *SN Business & Economics* **4:6**. . [[Crossref](#)]
26. Fabrice Ewolo Bitoto, Emmanuel Bruno Nkoa Ongo. 2024. Natural resource rents and public spending on education in Africa: Does women's political empowerment matter?. *Resources Policy* **93**, 105062. [[Crossref](#)]
27. Hahandou Mano. 2024. Natural resources and economic growth in WAEMU: the role of export diversification. *Mineral Economics* **30**. . [[Crossref](#)]
28. Nouf Alsharif, Sambit Bhattacharyya. 2024. Oil discovery, boom-bust cycle and manufacturing slowdown: Evidence from a large industry level dataset. *Review of Development Economics* **28:2**, 406-431. [[Crossref](#)]
29. Néstor A. Le Clech. 2024. Policy market orientation, property rights, and corruption effects on the rent of non-renewable resources in Latin America and the Caribbean. *Resources Policy* **91**, 104841. [[Crossref](#)]
30. Paul Awoa Awoa, Alexandre Ghislain Ngouma Yana, Françoise Okah Efogo, Henri Atangana Ondoa. 2024. Africa's resource curse: The key role of property rights. *Resources Policy* **91**, 104929. [[Crossref](#)]
31. Palak Jain, Vijayalakshmi S, Avichal Sharma. Resource Curse - Impact of Renewable Natural Resources on Economic Growth in the U.S. using ARDL Approach 1-5. [[Crossref](#)]
32. Iasmin Goes, Terrence L Chapman. 2024. Can "Soft" Advice from International Organizations Catalyze Natural Resource Sector Reform?. *International Studies Quarterly* **68:2**. . [[Crossref](#)]
33. Juan-Juan Xiong, Li-ping Zheng, Chang-song Wang. 2024. Natural resources, economic growth, and environmental sustainability in China: the role of technological innovation. *Journal of Environmental Planning and Management* **1-24**. [[Crossref](#)]
34. Hoda Assem Mohammed G Hassan Ahmed, Roberta Gatti, Daniel Lederman. Stages of Diversification Redux **67**, . [[Crossref](#)]
35. Roger Hosein, Nirvana Satnarine-Singh, George Saridakis. 2024. Analyzing the trade potential of SIDs with a focus on CARICOM's small resource exporters. *The Journal of International Trade & Economic Development* **33:2**, 199-222. [[Crossref](#)]

36. A. G. Anessova, Ch. B. Zhumagulov, G. Zh. Alibekova, R. D. Doszhan. 2024. Comparative Assessment of Regional Differences in the Dynamics of Key Economic Indicators Kazakhstan. *Economics: the strategy and practice* **18**:4, 147-169. [[Crossref](#)]
37. Rosemary S. Taylor. 2024. The fiscal effects of natural resource dependency in sub-Saharan Africa. *Natural Resources Forum* **89**. . [[Crossref](#)]
38. Alejandra Parrao, Tomás Reyes, Alfonso Cruz, Kristel Schön Molina. 2024. Firm size relationship with persistent innovation and employment growth: evidence from an emerging economy. *International Journal of Emerging Markets* **51**. . [[Crossref](#)]
39. Paul Awoa Awoa, Henri Atangana Ondo. 2024. Heterogeneous role of resource dependence on industrialization in developing countries. *Comparative Economic Studies* **130**. . [[Crossref](#)]
40. Chukwuemeka Valentine Okolo, Jun Wen, Andres Susaeta. 2024. Maximizing natural resource rent economics: The role of human capital development, financial sector development, and open-trade economies in driving technological innovation. *Environmental Science and Pollution Research* **31**:3, 4453-4477. [[Crossref](#)]
41. Tarron Khemraj, Sukrishnalall Pasha. 2024. Structural change and sectoral interconnectedness in two resource-abundant economies. *Resources Policy* **88**, 104529. [[Crossref](#)]
42. Erik S. Katovich. 2024. Winning and losing the resource lottery: Governance after uncertain oil discoveries. *Journal of Development Economics* **166**, 103204. [[Crossref](#)]
43. Julio Acuna, Lenin H. Balza, Nicolas Gomez-Parra. 2024. From wells to wealth? Government transfers and human capital. *Journal of Development Economics* **166**, 103206. [[Crossref](#)]
44. John Kamoga, Andrew Kisekka. 2024. Lifting Congo's Resource Curse: Initiatives by the International Community. *SSRN Electronic Journal* **63**. . [[Crossref](#)]
45. Michael Effah Asamoah, Mawuena Akosua Cudjoe, Teddy Ossei-Kwakye. Accountability and Transparency of Management of Natural Resources in Africa: Is the Information Sharing the Solution? 109-131. [[Crossref](#)]
46. Haruna Issahaku, Zangina Isshaq, Mohammed Amidu. How Does Taxation of Natural Resources Promote Inclusive Development in Africa? 259-280. [[Crossref](#)]
47. Zangina Isshaq, Aisha Mohammed Sissy, Mohammed Amidu. Can Extractive and Financial Sector Development Help Build Sustainable Infrastructure in Africa? 347-371. [[Crossref](#)]
48. Lotem Ikan, David Lagziel, Ohad Raveh. 2024. Resource Windfalls and Connectivity in a Theory of Polarization. *SSRN Electronic Journal* **89**. . [[Crossref](#)]
49. Erdal Arslan. 2023. The Impact of the Natural Resources Rents on the Economic Growth: The Case of Qatar. *Balkan Sosyal Bilimler Dergisi* **12**:24, 7-13. [[Crossref](#)]
50. Margaret Rutendo Magwedere. 2023. Credit - inequality nexus: the role of natural resources. *Economics and Environment* **86**:3, 508-526. [[Crossref](#)]
51. Pierre Mandon, Vincent Nossek, Diderot Sandjong Tomi. Stuck in a Conflict Trap: The Case of the Central African Republic Civil War **40**, . [[Crossref](#)]
52. Brahim Bergougui, Syed Mansoob Murshed. 2023. Aggregate and disaggregate impact of natural resources on sustainable development: New evidence from the latest institutional data. *Environmental and Sustainability Indicators* **20**, 100302. [[Crossref](#)]
53. François Bourguignon. A Deeper Investigation of Some Key Sectors and Institutions 127-346. [[Crossref](#)]
54. Stephen S. Golub, Ahmadou Aly Mbaye, John O. Igué. The Critical Role of Informal Trading with Nigeria 304-341. [[Crossref](#)]

55. Adnan Ali, Suresh Ramakrishnan, Faisal Faisal, Tooba Akram, Sidra Salam, Sami Ur Rahman. 2023. Bibliometric analysis of finance and natural resources: past trend, current development, and future prospects. *Environment, Development and Sustainability* 25:11, 13035-13064. [[Crossref](#)]
56. Xia Liu. 2023. Tourism development, environmental regulations, and natural resource management: Evidence from G20 countries. *Resources Policy* 86, 104224. [[Crossref](#)]
57. Chunlin Cai, Ning Li. 2023. The threshold effect of export sophistication on natural resources-trade diversification nexus. *Resources Policy* 86, 104316. [[Crossref](#)]
58. Mehmet Akif Destek, Mohammad Razib Hossain, Sercan Aydın, Mohammed Shakib, Gamze Destek. 2023. Investigating the role of economic complexity in evading the resource curse. *Resources Policy* 86, 104131. [[Crossref](#)]
59. Wei Sun, Guohui Yao. 2023. Impact of mineral resource depletion on energy use: Role of energy extraction, CO2 intensity, and natural resource sustainability. *Resources Policy* 86, 104175. [[Crossref](#)]
60. Haiyan Wang, Zhaoyang Lei. 2023. Energy supply from oil and gas, mineral depletion, and total natural resource rents: Impact of oil equivalent energy use CO2 intensity. *Resources Policy* 86, 104172. [[Crossref](#)]
61. Yani Guo, Haixia Zheng, Yun Zeng, Wei Fan, Bayan Albahooth, Rubaiyat Ahsan Bhuiyan. 2023. Natural resources extraction of RCEP trade bloc: Examining geopolitical risk and economic situation. *Resources Policy* 86, 104227. [[Crossref](#)]
62. Guibin Luo, Li Zheng, Queling Zeng. 2023. Natural resources perspective of economic performance: Streamlining mineral resources as a path to sustainable development. *Resources Policy* 86, 104236. [[Crossref](#)]
63. Ohad Raveh, Yacov Tsur. 2023. Can resource windfalls reduce corruption? The role of term limits. *Journal of Environmental Economics and Management* 122, 102891. [[Crossref](#)]
64. Kadagde Dalam Debonheur, Désiré Avom, Idrissa Ouedraogo. 2023. The effect of natural resources rents on human development in selected African countries. *Natural Resources Forum* 3. . [[Crossref](#)]
65. Thorsten Janus. 2023. Technology adoption in autocratic economies: The role of fiscal capacity. *Scottish Journal of Political Economy* 70:4, 355-371. [[Crossref](#)]
66. Mohammad Abdul Munim Joarder, Monir Uddin Ahmed. 2023. Does natural resource abundance breed corruption? The role of political institutions. *SN Business & Economics* 3:9. . [[Crossref](#)]
67. Olivier Damette, Sandrine Kablan, Clément Mathonnat. 2023. Firms' access to finance in resource-based countries and the financial resource curse. *Journal of Comparative Economics* 51:3, 1031-1047. [[Crossref](#)]
68. Mwoya Byaro, Abel Kinyondo, Deusdedit A. Lemnge. 2023. DOES SUB-SAHARAN AFRICA'S RAPID POPULATION GROWTH HAVE POSITIVE OR NEGATIVE EFFECTS ON AGGREGATE DOMESTIC INVESTMENT?. *World Affairs* 186:3, 806-824. [[Crossref](#)]
69. Néstor Adrián Le Clech. 2023. Productive capacity and international competitiveness: evidence from Latin America and Caribbean countries. *Empirica* 50:3, 695-724. [[Crossref](#)]
70. Néstor Le Clech, Juan Carlos Guevara-Pérez, R. Urdaneta-Camacho. 2023. Human Capital and Non-Renewable Natural Resources in Latin America and the Caribbean: 'Is It a Curse or a Blessing?'. *Sustainability* 15:15, 11875. [[Crossref](#)]
71. Huijun Liang, Changkuan Shi, Nabila Abid, Yanliang Yu. 2023. Are digitalization and human development discarding the resource curse in emerging economies?. *Resources Policy* 85, 103844. [[Crossref](#)]
72. Xuecheng Wei, Weihua Hu. 2023. Revisiting resources curse hypothesis in China: Exploring the asymmetric effect of green investment and green innovation. *Resources Policy* 85, 103974. [[Crossref](#)]

73. Zhun Zheng, Alexander Lisovskiy, László Vasa, Wadim Strielkowski, Yanwu Yang. 2023. Resources curse and sustainable development perspective: Fresh evidence from oil rich countries. *Resources Policy* **85**, 103698. [[Crossref](#)]
74. Abdullah Almansour. 2023. Crude oil cycles and the choice of private vs public school: Evidence from Saudi Arabia. *Resources Policy* **85**, 103931. [[Crossref](#)]
75. Fayssal Ayad. 2023. Mapping the path forward: A prospective model of natural resource depletion and sustainable development. *Resources Policy* **85**, 104016. [[Crossref](#)]
76. Chien-Chiang Lee, Runchi Lou, Fuhao Wang. 2023. Geopolitical risk and the sustainable utilization of natural resources: Evidence from developing countries. *Resources Policy* **85**, 103864. [[Crossref](#)]
77. Juyoung Cheong. 2023. Do preferential trade agreements stimulate high-tech exports for low-income countries?. *Economic Modelling* **18**, 106465. [[Crossref](#)]
78. Olawale Daniel Akinyele, Olusola Mathew Oloba, Gisele Mah. 2023. Drivers of unemployment intensity in sub-Saharan Africa: do government intervention and natural resources matter?. *Review of Economics and Political Science* **8**:3, 166-185. [[Crossref](#)]
79. Martin Schröder, Fusanori Iwasaki. 2023. From nickel to Electric cars? Indonesia's resource cum automotive industry policy. *Journal of the Asia Pacific Economy* **18**, 1-22. [[Crossref](#)]
80. Nicolas Berman, Mathieu Couttenier, Victoire Girard. 2023. Mineral Resources and the Saliency of Ethnic Identities. *The Economic Journal* **133**:653, 1705-1737. [[Crossref](#)]
81. Abdul Rehman, Hengyun Ma, Rafael Alvarado, Fayyaz Ahmad. 2023. The nexus of military, final consumption expenditures, total reserves, and economic development of Pakistan. *Economic Change and Restructuring* **56**:3, 1753-1776. [[Crossref](#)]
82. Corey Young. 2023. Employment and Income Effects of Investments Made Using the Act 13 Unconventional Natural Gas Impact Fee in Pennsylvania. *Energies* **16**:11, 4437. [[Crossref](#)]
83. Irina Heim, Yelena Kalyuzhnova, Abby Ghobadian. 2023. Win-win strategies for firms operating in resource-abundant countries: Technological spillovers and a collaborative diversification policy. *Resources Policy* **83**, 103578. [[Crossref](#)]
84. Junguo Shi, Yang Liu, Bert M. Sadowski, David Alemzero, Shanshan Dou, Huaping Sun, Sobia Naseem. 2023. The role of economic growth and governance on mineral rents in main critical minerals countries. *Resources Policy* **83**, 103718. [[Crossref](#)]
85. Bulent Unel, Gregory B. Upton. 2023. Oil & gas induced economic fluctuations and self-employment. *Labour Economics* **82**, 102362. [[Crossref](#)]
86. Armand Fréjuis Akpa. 2023. Effect of natural resources rents on income inequality in sub-Saharan Africa: exploring the direct and indirect transmission mechanisms. *International Journal of Development Issues* **99**. . [[Crossref](#)]
87. Waqar Wadho, Sadia Hussain. 2023. Ethnic diversity, concentration of political power and the curse of natural resources. *Economia Politica* **40**:1, 113-137. [[Crossref](#)]
88. Rabah Arezki, Ana Fernandes, Federico Merchán, Ha Nguyen, Tristan Reed. Natural Resource Dependence and Monopolized Imports **120**, . [[Crossref](#)]
89. Iasmin Goes. 2023. Examining the effect of IMF conditionality on natural resource policy. *Economics & Politics* **35**:1, 227-285. [[Crossref](#)]
90. Maria Savona, Filippo Bontadini. 2023. Revisiting the Natural Resource Curse: Backward Linkages for Export Diversification and Structural Economic Transformation. *Development and Change* **54**:2, 378-421. [[Crossref](#)]

91. Fu Chen, Sunil Tiwari, Kamel Si Mohammed, Weidong Huo, Paweł Jamróz. 2023. Minerals resource rent responses to economic performance, greener energy, and environmental policy in China: Combination of ML and ANN outputs. *Resources Policy* **81**, 103307. [[Crossref](#)]
92. Yufeng Chen, Adnan Khurshid, Abdur Rauf, Hanyao Yang, Adrian Cantemir Calin. 2023. Natural resource endowment and human development: Contemporary role of governance. *Resources Policy* **81**, 103334. [[Crossref](#)]
93. Edward B. Barbier, Joanne C. Burgess. 2023. Natural Capital, Institutional Quality and SDG Progress in Emerging Market and Developing Economies. *Sustainability* **15**:4, 3055. [[Crossref](#)]
94. Siham Matallah. 2023. An empirical study of innovation-led economic diversification in MENA oil exporters. *Environmental Science and Pollution Research* **30**:9, 22570-22589. [[Crossref](#)]
95. Solomon Nborikan Nakouwo, Daniel Ofori-Sasu, Baah Aye Kusi. 2023. Natural resources and national productivity in Africa: are there differences in high and low globalized economies?. *critical perspectives on international business* **19**:2, 299-318. [[Crossref](#)]
96. Lars Christian Bruno. 2023. Natural resources and economic growth: comparing nineteenth century Scandinavia and twentieth century Southeast Asia. *Scandinavian Economic History Review* **71**:1, 58-79. [[Crossref](#)]
97. Winai Meesang, Erawan Baothong, Aphichat Srichat, Sawai Mattapha, Wiwat Kaensa, Pathomsorn Juthakanok, Wipaporn Kitisriworaphan, Kanda Saosoong. 2023. Effectiveness of the genus *Riccia* (Marchantiophyta: Ricciaceae) as a biofilter for particulate matter adsorption from air pollution. *AIMS Environmental Science* **10**:1, 157-177. [[Crossref](#)]
98. Kaiyuan Liu, Ayesha Afzal, Yifan Zhong, Amir Hasnaoui, Xiao-Guang Yue. 2023. Investigating the resource curse: Evidence from MENA and N-11 countries. *Resources Policy* **80**, 103215. [[Crossref](#)]
99. Li Liu, Deng Yu. 2023. Does volatility in natural resources commodity prices and economic performance matter for RCEP economies?. *Resources Policy* **80**, 103223. [[Crossref](#)]
100. Bamidele A. Wale-Oshinowo, Ayokunle Olumuyiwa Omobowale, Mercy M. Adeyeye, Sorbarikor Lebura. Least Developed Countries in Africa 882-897. [[Crossref](#)]
101. Momina Ahmad, Muhammad Zeeshan. 2023. Multi-objective optimization of concentrated solar power plants from an energy-water-environment nexus perspective under distinct climatic conditions – Part B: Environ-economic analysis. *Journal of Cleaner Production* **385**, 135689. [[Crossref](#)]
102. Goran M. Muhamad. Economic Diversification to Reduce Natural Resource Dependency in the Literature 15-53. [[Crossref](#)]
103. Goran M. Muhamad. Overview of the Book 1-14. [[Crossref](#)]
104. Goran M. Muhamad. Presentation of Results 97-153. [[Crossref](#)]
105. Goran M. Muhamad. Overall Summary, Hypotheses Tests and Policy Implications 155-169. [[Crossref](#)]
106. Willy Maliganya, Kenneth M. K. Bengesi, Max M. Mbota, Gideon Bulengela. Corporate Social Responsibility and the Challenges of the Regulatory Environment in the Tanzanian Mining Sector 157-173. [[Crossref](#)]
107. Tao Ding, Malin Song. Legal Safeguards for the Natural Resource Regulatory System 225-252. [[Crossref](#)]
108. Dr Chris Adomako-Kwakye. 2023. Assessing Ghana's Petroleum Revenue Management Act within the context of Transparency and Accountability. *SSRN Electronic Journal* **28**. . [[Crossref](#)]
109. David Lagziel, ehud lehrer, Ohad Raveh. 2023. Resource Windfalls and Political Sabotage: Evidence from 5.2 Million Political Ads. *SSRN Electronic Journal* **89**. . [[Crossref](#)]

110. Zoe Pearson, Alexandre Skiba, Kendra McSweeney, Erik Nielsen, Justin Piccorelli. 2022. Acknowledging Cocaine Capital in Central American Development. *Journal of Illicit Economies and Development* 4:2, 160-176. [[Crossref](#)]
111. Chunhui Liu, Yanjie Wang, Xiaoding Ma, Di Cui, Bing Han, Dayuan Xue, Longzhi Han. 2022. Traditional agricultural management of Kam Sweet Rice (*Oryza sativa* L.) in southeast Guizhou Province, China. *Journal of Ethnobiology and Ethnomedicine* 18:1. . [[Crossref](#)]
112. Iasmin Goes. 2022. Electoral Politics, Fiscal Policy, and the Resource Curse. *Studies in Comparative International Development* 57:4, 525-576. [[Crossref](#)]
113. Rafael Alvarado, Lizeth Cuesta, Pavan Kumar, Abdul Rehman, Muntasir Murshed, Cem Işık, Nora Vega, Santiago Ochoa-Moreno, Brayan Tillaguango. 2022. Impact of natural resources on economic progress: Evidence for trading blocs in Latin America using non-linear econometric methods. *Resources Policy* 79, 102908. [[Crossref](#)]
114. Keyu Luo, Qi Wang, Chao Liang. 2022. The way to break the resource curse: New evidence from China. *Resources Policy* 79, 102971. [[Crossref](#)]
115. Lijun Zeng, Yue Zhao, Xilian Wang. 2022. How to develop the new urbanization in mineral resources abundant regions in China? A VIKOR-based path matching model. *Resources Policy* 79, 103095. [[Crossref](#)]
116. Koffi D. Kpognon. 2022. Effect of Natural Resources on the Size of Informal Economy in sub-Saharan Africa: An Empirical Investigation. *Structural Change and Economic Dynamics* 63, 1-14. [[Crossref](#)]
117. Abiodun Adegboye, Olawale Daniel Akinyele. 2022. Assessing the determinants of government spending efficiency in Africa. *Future Business Journal* 8:1. . [[Crossref](#)]
118. Esteban Fernández-Vázquez. 2022. Mine closures and local diversification: Job diversity for coal-mining areas in a post-coal economy. *The Extractive Industries and Society* 12, 101086. [[Crossref](#)]
119. Alexander Gard-Murray. 2022. De-risking Decarbonization: Accelerating Fossil Fuel Retirement by Shifting Costs to Future Winners. *Global Environmental Politics* 22:4, 70-94. [[Crossref](#)]
120. Gideon Ndubuisi, Chuks Otioma, Solomon Owusu, Godsway Koroku Tetteh. 2022. ICTs quality and technical efficiency: An empirical analysis. *Telecommunications Policy* 46:10, 102439. [[Crossref](#)]
121. Sadia Safdar, Azra Khan, Zubaria Andlib. 2022. Impact of good governance and natural resource rent on economic and environmental sustainability: an empirical analysis for South Asian economies. *Environmental Science and Pollution Research* 29:55, 82948-82965. [[Crossref](#)]
122. Michael Carney, Saul Estrin, Zhixiang Liang, Daniel Shapiro. 2022. Are Latin American business groups different? An exploratory international political economy perspective. *Multinational Business Review* 30:4, 546-572. [[Crossref](#)]
123. Gerhard Toews, Pierre-Louis Vézina. 2022. Resource Discoveries, FDI Bonanzas, and Local Multipliers: Evidence from Mozambique. *The Review of Economics and Statistics* 104:5, 1046-1058. [[Crossref](#)]
124. Hong Wu. 2022. Trade openness, green finance and natural resources: A literature review. *Resources Policy* 78, 102801. [[Crossref](#)]
125. Obie Porteous. 2022. Reverse Dutch disease with trade costs: Prospects for agriculture in Africa's oil-rich economies. *Journal of International Economics* 138, 103651. [[Crossref](#)]
126. Linda Stihl. 2022. Challenging the set mining path: Agency and diversification in the case of Kiruna. *The Extractive Industries and Society* 11, 101064. [[Crossref](#)]
127. Korhan K. Gokmenoglu, Bezhan Rustamov. 2022. The role of the natural resource abundance in the short and long run: The case of the Kingdom of Saudi Arabia. *Resources Policy* 77, 102699. [[Crossref](#)]

128. YunQian Zhang. 2022. Influence of stock market factors on the natural resources dependence for environmental change: Evidence from China. *Resources Policy* **77**, 102711. [[Crossref](#)]
129. Vaseem Akram, Jabir Ali. 2022. Do countries converge in natural resources rents? Evidence from club convergence analysis. *Resources Policy* **77**, 102743. [[Crossref](#)]
130. Nihal Ahmed, Adnan Ahmed Sheikh, Farhan Mahboob, Muhammad Sibte Ali, Elżbieta Jasińska, Michał Jasiński, Zbigniew Leonowicz, Alessandro Burgio. 2022. Energy Diversification: A Friend or Foe to Economic Growth in Nordic Countries? A Novel Energy Diversification Approach. *Energies* **15**:15, 5422. [[Crossref](#)]
131. James Cust, Alexis Rivera Ballesteros, Albert Zeufack. The Dog that Didn't Bark: The Missed Opportunity of Africa's Resource Boom **818**, . [[Crossref](#)]
132. Jürgen Antony, Torben Klarl. 2022. Poverty and sustainable development around the world during transition periods. *Energy Economics* **110**, 106016. [[Crossref](#)]
133. Ahmed Imran Hunjra, Muhammad Azam, Maria Giuseppina Bruna, Dilvin Taskin. 2022. Role of financial development for sustainable economic development in low middle income countries. *Finance Research Letters* **47**, 102793. [[Crossref](#)]
134. José Peres-Cajías, Sara Torregrosa-Hetland, Cristián Ducoing. 2022. Resource abundance and public finances in five peripheral economies, 1850s–1930s. *Resources Policy* **76**, 102539. [[Crossref](#)]
135. Asma Arif, Hieu Minh Vu, Ma Cong, Leow Hon Wei, Md. Monirul Islam, Gniewko Niedbała. 2022. Natural resources commodity prices volatility and economic performance: Evaluating the role of green finance. *Resources Policy* **76**, 102557. [[Crossref](#)]
136. Keisuke Okada, Takayoshi Shinkuma. 2022. Transparency and natural resources in sub-Saharan Africa. *Resources Policy* **76**, 102574. [[Crossref](#)]
137. Mingting Xie, Muhammad Irfan, Asif Razzaq, Vishal Dagar. 2022. Forest and mineral volatility and economic performance: Evidence from frequency domain causality approach for global data. *Resources Policy* **76**, 102685. [[Crossref](#)]
138. Jose L. Diaz-Sanchez, Abrams M. E. Tagem, Joana Mota. 2022. Tax revenue effort and aid in fragile states: The case of Comoros. *South African Journal of Economics* **90**:2, 175-195. [[Crossref](#)]
139. John-Erik Rørheim, Ron Boschma. 2022. Skill-relatedness and employment growth of firms in times of prosperity and crisis in an oil-dependent region. *Environment and Planning A: Economy and Space* **54**:4, 676-692. [[Crossref](#)]
140. Giray Gozgor, Sudharshan Reddy Paramati. 2022. Does energy diversification cause an economic slowdown? Evidence from a newly constructed energy diversification index. *Energy Economics* **109**, 105970. [[Crossref](#)]
141. Alycia Leonard, Aniq Ahsan, Flora Charbonnier, Stephanie Hirmer. 2022. The resource curse in renewable energy: A framework for risk assessment. *Energy Strategy Reviews* **41**, 100841. [[Crossref](#)]
142. Matthew E. Oliver, Gregory B. Upton. 2022. Are Energy Endowed Countries Responsible for Conditional Convergence?. *The Energy Journal* **43**:3, 205-228. [[Crossref](#)]
143. Alica Daly, David Humphreys, Julio D. Raffo, Giulia Valacchi. Global Challenges for Innovation in the Mining Industries 1-24. [[Crossref](#)]
144. Michiko Iizuka, Carlo Pietrobelli, Fernando Vargas. Innovation in Mining Global Value Chains: Implications for Emerging Economies 88-116. [[Crossref](#)]
145. Franziska Görmar, Markus Grillitsch, Vladan Hruška, Melinda Mihály, Erika Nagy, Jan Píša, Linda Stihl. 2022. Power relations and local agency: a comparative study of European mining towns. *Urban Research & Practice* **45**, 1-24. [[Crossref](#)]

146. Katarzyna Czech. 2022. OIL DEPENDENCE OF POST-SOVIET COUNTRIES IN THE CASPIAN SEA REGION: THE CASE OF AZERBAIJAN AND KAZAKHSTAN. *Acta Scientiarum Polonorum. Oeconomia* 17:3, 5-12. [[Crossref](#)]
147. David L. Carlton, Peter A. Coclanis. 2022. Resource Dearth: Challenges to Development in the American South. *Challenge* 65:1-2, 3-11. [[Crossref](#)]
148. Jonathan Munemo. 2022. Do African resource rents promote rent-seeking at the expense of entrepreneurship?. *Small Business Economics* 58:3, 1647-1660. [[Crossref](#)]
149. Waseem A. Toraubally. 2022. Strategic trading and Ricardian comparative advantage. *Journal of Economic Behavior & Organization* 195, 428-447. [[Crossref](#)]
150. Nasr G. Elbahnasawy, Michael A. Ellis. 2022. Inflation and the Structure of Economic and Political Systems. *Structural Change and Economic Dynamics* 60, 59-74. [[Crossref](#)]
151. Osama D. Sweidan, Khadiga Elbargathi. 2022. The effect of oil rent on economic development in Saudi Arabia: Comparing the role of globalization and the international geopolitical risk. *Resources Policy* 75, 102469. [[Crossref](#)]
152. Arshad Ahmad Khan, Jianchao Luo, Adnan Safi, Sufyan Ullah Khan, Muhammad Abu Sufyan Ali. 2022. What determines volatility in natural resources? Evaluating the role of political risk index. *Resources Policy* 75, 102540. [[Crossref](#)]
153. Siham Matallah. 2022. Rampant corruption: The dilemma facing economic diversification in oil-abundant MENA countries. *Resources Policy* 75, 102541. [[Crossref](#)]
154. Issaka Dialga, Youmanli Ouoba. 2022. How do extractive resources affect human development? Evidence from a panel data analysis. *Resources, Environment and Sustainability* 7, 100046. [[Crossref](#)]
155. Btool H. Mohamed, Mustafa Disli, Mohammed bin Saleh Al-Sada, Muammer Koç. 2022. Investigation on Human Development Needs, Challenges, and Drivers for Transition to Sustainable Development: The Case of Qatar. *Sustainability* 14:6, 3705. [[Crossref](#)]
156. Victor Chidubem Iwuoha. 2022. Global Oil Crisis and Early COVID-19 Strategic Containment Responses in Africa: The Nigerian Experience. *India Quarterly: A Journal of International Affairs* 78:1, 47-67. [[Crossref](#)]
157. Prince Amoah, Gabriel Eweje. 2022. Barriers to environmental sustainability practices of multinational mining companies in Ghana: an institutional complexity perspective. *Corporate Governance: The International Journal of Business in Society* 22:2, 364-384. [[Crossref](#)]
158. David Mihalyi, Jyhjong Hwang, Diego Rivetti, James Cust. Resource-Backed Loans in Sub-Saharan Africa . [[Crossref](#)]
159. Daniel Ofoe Chachu, Edward Nketiah-Amponsah. 2022. The Fiscal resource curse: What's China's natural resource appetite got to do with it?. *International Review of Applied Economics* 36:1, 129-146. [[Crossref](#)]
160. Roberto Dell'Anno, Majid Maddah. 2022. Natural resources, rent seeking and economic development. An analysis of the resource curse hypothesis for Iran. *Macroeconomics and Finance in Emerging Market Economies* 15:1, 47-65. [[Crossref](#)]
161. Christopher B. Yenkey, Nathaniel R. Hill. 2022. Trade and sustainability: Three decades of change across Africa. *Africa Journal of Management* 8:1, 109-142. [[Crossref](#)]
162. Madhushree Sekher, Mansi Awasthi, Subhankar Nayak, Rajesh Kumar. Resource Extraction and Conflict in India 129-149. [[Crossref](#)]
163. Kimberly B. Bolch, Lidia Ceriani, Luis F. López-Calva. 2022. The arithmetics and politics of domestic resource mobilization for poverty eradication. *World Development* 149, 105691. [[Crossref](#)]

164. Martin H Davies, Marcel Schröder. 2022. A Simple Model of Internal and External Balance for Resource-Rich Developing Countries. *SSRN Electronic Journal* 37. . [[Crossref](#)]
165. Julio Acuna, Lenin H. Balza, Nicolas Gomez Parra. 2022. From Wells to Wealth? Government Transfers and Human Capital. *SSRN Electronic Journal* 56. . [[Crossref](#)]
166. Christopher Boone, Heidi Kristiina Kaila, David E. Sahn. 2022. Posh spice or scary spice? The impacts of Madagascar's vanilla boom on household well-being. *SSRN Electronic Journal* 127. . [[Crossref](#)]
167. Ohad Raveh, Yan Zhang. 2022. The Long-Term Health Effects of Giant Oil Fields: Evidence from China. *SSRN Electronic Journal* 85. . [[Crossref](#)]
168. Anika Z.M. Rus, Nurul S.M. Salim, Ashraf Alzomor, Noraini Marsi, Mahmud Junoh, Mohamad Z.R.B. Zamdin. Plastics in Thermal Insulation 273-284. [[Crossref](#)]
169. James Cust, Alexis Rivera Ballesteros. Wealth Accounting, Diversification, and Macroeconomic Management 271-310. [[Crossref](#)]
170. James Cust, Pierre Mandon. Nonrenewable Natural Capital and Human Capital Distortions: Impact on Accumulation, Gender, and the Public Sector 311-341. [[Crossref](#)]
171. Ekaterina Gratcheva, Dieter Wang. Natural Allies: Wealth and Sovereign Environment, Social, and Governance Frameworks 343-359. [[Crossref](#)]
172. James Cust, Alexis Rivera Ballesteros. The Nonrenewable Wealth of Nations 191-223. [[Crossref](#)]
173. Arzaman et al.. 2021. Potentials of associated traditional knowledge on marine resources for economic and general well-being among coastal communities in Terengganu, Malaysia. *International Journal of ADVANCED AND APPLIED SCIENCES* 8:12, 93-101. [[Crossref](#)]
174. Ousama Ben-Salha, Hajer Dachraoui, Maamar Sebri. 2021. Natural resource rents and economic growth in the top resource-abundant countries: A PMG estimation. *Resources Policy* 74, 101229. [[Crossref](#)]
175. Rahul Mehrotra, Gilles Carbonnier. 2021. Abnormal pricing in international commodity trade: Empirical evidence from Switzerland. *Resources Policy* 74, 102352. [[Crossref](#)]
176. Fitsum S. Weldegiorgis, Evelyn Dietsche, Daniel M. Franks. 2021. Building mining's economic linkages: A critical review of local content policy theory. *Resources Policy* 74, 102312. [[Crossref](#)]
177. Santosh Shrestha, Koji Kotani, Makoto Kakinaka. 2021. The relationship between trade openness and government resource revenue in resource-dependent countries. *Resources Policy* 74, 102332. [[Crossref](#)]
178. Sidiki Boire, Kevin S. Nell. 2021. The enclave hypothesis and Dutch disease effect: A critical appraisal of Mali's gold mining industry. *Resources Policy* 74, 102398. [[Crossref](#)]
179. Francisco J. Tapia-Ubeda, José A. Isbej Muga, Diego A. Polanco-Lahoz. 2021. Greening Factor Framework Integrating Sustainability, Green Supply Chain Management, and Circular Economy: The Chilean Case. *Sustainability* 13:24, 13575. [[Crossref](#)]
180. Svetlana Babina, Natal'ya Egorova. 2021. Effect of Resource Economy on the Standard of Living in the Kemerovo Region. *Bulletin of Kemerovo State University. Series: Political, Sociological and Economic sciences* 2021:3, 357-373. [[Crossref](#)]
181. Antonio Savoia, Kunal Sen. 2021. The Political Economy of the Resource Curse: A Development Perspective. *Annual Review of Resource Economics* 13:1, 203-223. [[Crossref](#)]
182. M. Niaz Asadullah, Norma Mansor, Antonio Savoia. 2021. Understanding a "Development Miracle": Poverty Reduction and Human Development in Malaysia Since the 1970s. *Journal of Human Development and Capabilities* 22:4, 551-576. [[Crossref](#)]
183. Ifeanyi Ezeonu. 2021. Resource Curse or Accumulation by Dispossession? Economic Displacement and the Challenges of HIV Infection in a Petroleum Economy. *International Critical Thought* 11:4, 553-567. [[Crossref](#)]

184. Gregory B. Upton, Han Yu. 2021. Labor demand shocks and earnings and employment differentials: Evidence from the U.S. shale oil & gas boom. *Energy Economics* **102**, 105462. [[Crossref](#)]
185. Aynura Ismayilova, Vilayat Valiyev. Decision Making on the Selection of Factors Affecting to Increase of Non-Oil Export for Oil-Producing Countries 363-366. [[Crossref](#)]
186. Martín Obaya. 2021. The evolution of resource nationalism: The case of Bolivian lithium. *The Extractive Industries and Society* **8**:3, 100932. [[Crossref](#)]
187. Amir Mousavi, Jeremy Clark. 2021. The effects of natural resources on human capital accumulation: A literature survey. *Journal of Economic Surveys* **35**:4, 1073-1117. [[Crossref](#)]
188. Pierre-Louis Vézina. 2021. The Oil Nouveau-Riche and Arms Imports. *Journal of African Economies* **30**:4, 349-369. [[Crossref](#)]
189. Victoire Girard, Agnès Zabsonré. Industrial and Artisanal Exploitation of Natural Resources: Impacts on Development 195-218. [[Crossref](#)]
190. Goran M. Muhamad, Almas Heshmati, Nabaz T. Khayyat. 2021. How to reduce the degree of dependency on natural resources?. *Resources Policy* **72**, 102047. [[Crossref](#)]
191. Moez Ben Tahar, Sarra Ben Slimane, Mohamed Ali Houfi. 2021. Commodity prices and economic growth in commodity-dependent countries: New evidence from nonlinear and asymmetric analysis. *Resources Policy* **72**, 102043. [[Crossref](#)]
192. Kuei-Feng Chang, Jin-Xu Lin, Shih-Mo Lin. 2021. Revisiting the Dutch disease thesis from the perspective of value-added trade. *Resources Policy* **72**, 102103. [[Crossref](#)]
193. Chi-Swian Wong. 2021. Science Mapping: A Scientometric Review on Resource Curses, Dutch Diseases, and Conflict Resources during 1993–2020. *Energies* **14**:15, 4573. [[Crossref](#)]
194. Addisu A Lashitew, Michael L Ross, Eric Werker. 2021. What Drives Successful Economic Diversification in Resource-Rich Countries?. *The World Bank Research Observer* **36**:2, 164-196. [[Crossref](#)]
195. Veli Yilanci, Murat Aslan, Onder Ozgur. 2021. Disaggregated analysis of the curse of natural resources in most natural resource-abundant countries. *Resources Policy* **71**, 102017. [[Crossref](#)]
196. James Broughel. 2021. Sovereign wealth funds: A potential solution to market failure and government failure. *Economic Affairs* **41**:2, 241-251. [[Crossref](#)]
197. Char-lee Moyle, Fabrizio Carmignani, Brent Moyle, Sajid Anwar. 2021. Beyond Dutch Disease: Are there mediators of the mining–tourism nexus?. *Tourism Economics* **27**:4, 744-761. [[Crossref](#)]
198. Azmat Gani. 2021. Sustainability of energy assets and corruption in the developing countries. *Sustainable Production and Consumption* **26**, 741-751. [[Crossref](#)]
199. Dieter Wang. Natural Capital and Sovereign Bonds **49**, . [[Crossref](#)]
200. Maria Savona. 2021. Revisiting High Development Theory to Explain Upgrading Prospects in Business Services Global Value Chains. *The European Journal of Development Research* **33**:2, 206-226. [[Crossref](#)]
201. David Mihalyi, Thomas Scurfield. 2021. How Africa's prospective petroleum producers fell victim to the presource curse. *The Extractive Industries and Society* **8**:1, 220-232. [[Crossref](#)]
202. Alexander W. Cappelen, Odd-Helge Fjeldstad, Donald Mmari, Ingrid Hoem Sjurson, Bertil Tungodden. 2021. Understanding the resource curse: A large-scale experiment on corruption in Tanzania. *Journal of Economic Behavior & Organization* **183**, 129-157. [[Crossref](#)]
203. Martín Obaya, Andrés López, Paulo Pascuini. 2021. Curb your enthusiasm. Challenges to the development of lithium-based linkages in Argentina. *Resources Policy* **70**, 101912. [[Crossref](#)]
204. Mungunzul Badamvaanchig, Moinul Islam, Makoto Kakinaka. 2021. Pass-through of commodity price to Mongolian stock price: Symmetric or asymmetric?. *Resources Policy* **70**, 101955. [[Crossref](#)]

205. Keisuke Okada, Sovannroeun Samreth. 2021. Oil bonanza and the composition of government expenditure. *Economics of Governance* 22:1, 23–46. [[Crossref](#)]
206. Elena Esposito, Scott F. Abramson. 2021. The European coal curse. *Journal of Economic Growth* 26:1, 77–112. [[Crossref](#)]
207. Hajer Dachraoui, Maamar Sebri, Mahmoud M. A. Dwedar. 2021. Natural Resources and Illicit Financial Flows from BRICS Countries. *Biophysical Economics and Sustainability* 6:1. . [[Crossref](#)]
208. Marek Szturo, Bogdan Włodarczyk, Alberto Burchi, Ireneusz Miciuła, Karolina Szturo. 2021. Improving Relations between a State and a Business Enterprise in the Context of Counteracting Adverse Effects of the Resource Curse. *Sustainability* 13:3, 1067. [[Crossref](#)]
209. Zhandos Ybrayev. 2021. Real exchange rate management and economic growth: export performance in Kazakhstan, 2009–2019. *International Review of Applied Economics* 35:1, 64–90. [[Crossref](#)]
210. Manal Shehabi. Redefining Economic Sustainability in Resource-rich States: Comparative Lessons 153–190. [[Crossref](#)]
211. Zarqa Parvez. Women Workforce Participation in Qatar: Oil, Culture and Demographic Trends 231–245. [[Crossref](#)]
212. Christian Dorninger, Alf Hornborg, David J. Abson, Henrik von Wehrden, Anke Schaffartzik, Stefan Giljum, John-Oliver Engler, Robert L. Feller, Klaus Hubacek, Hanspeter Wieland. 2021. Global patterns of ecologically unequal exchange: Implications for sustainability in the 21st century. *Ecological Economics* 179, 106824. [[Crossref](#)]
213. Muhammad Haseeb, Sebastian Kot, Hafezali Iqbal Hussain, Fakarudin Kamarudin. 2021. The natural resources curse-economic growth hypotheses: Quantile-on-Quantile evidence from top Asian economies. *Journal of Cleaner Production* 279, 123596. [[Crossref](#)]
214. Angela Oyilieze Akanwa. River Sand Mining and Its Ecological Footprint at Odor River, Nigeria 473–514. [[Crossref](#)]
215. Rabah Arezki, Ana Margarida Fernandes, Federico Merchan, Ha Nguyen, Tristan Reed. 2021. Natural Resource Dependence and Monopolized Imports. *SSRN Electronic Journal* 120. . [[Crossref](#)]
216. Giray Gozgor, Sudharshan Reddy Paramati. 2021. Does Energy Diversification Cause an Economic Slowdown? Evidence from a Newly Constructed Energy Diversification Index. *SSRN Electronic Journal* 5. . [[Crossref](#)]
217. Ohad Raveh, Yacov Tsur. 2021. Can Resource Windfalls Reduce Corruption? The Role of Term Limits. *SSRN Electronic Journal* 128. . [[Crossref](#)]
218. Lirong Han, Lei Li. 2021. Sustainable Development of Tourism under the Background of Low-Carbon and Green Economy. *Advances in Materials Science and Engineering* 2021:1. . [[Crossref](#)]
219. Jan Otto Andersson. Ecological Unequal Exchange 704–717. [[Crossref](#)]
220. Giovanni Oscar Serafini, Geoffrey Wood, Leslie Thomas Szamosi. 2020. People management after state socialism: A literature review and research agenda. *Human Resource Management Review* 30:4, 100741. [[Crossref](#)]
221. Nicoletta Corrocher, Camilla Lenzi, Marie-Louise Deshaies. 2020. The curse of natural resources: an empirical analysis of European regions. *Regional Studies* 54:12, 1694–1708. [[Crossref](#)]
222. James C. A. Redman. 2020. An Overview of Innovation in the Arab Gulf States: From Origins and Five-Year Plans to New Cities and Indices. *Social Science Quarterly* 101:7, 2485–2506. [[Crossref](#)]
223. Elwasila Saeed Elamin Mohamed. 2020. Resource Rents, Human Development and Economic Growth in Sudan. *Economies* 8:4, 99. [[Crossref](#)]
224. Katundu Imasiku, Valerie M. Thomas. 2020. The Mining and Technology Industries as Catalysts for Sustainable Energy Development. *Sustainability* 12:24, 10410. [[Crossref](#)]

225. Odd-Helge Fjeldstad, Aslak Orre, Francisco Paulo. 2020. The non-oil tax reform in Angola: Escaping from petroleum dependency?. *The Extractive Industries and Society* 7:4, 1189-1199. [[Crossref](#)]
226. Rahul Basu, Scott Pegg. 2020. Minerals are a shared inheritance: Accounting for the resource curse. *The Extractive Industries and Society* 7:4, 1369-1376. [[Crossref](#)]
227. Jorge Gallego, Stanislaio Maldonado, Lorena Trujillo. 2020. From curse to blessing? institutional reform and resource booms in Colombia. *Journal of Economic Behavior & Organization* 178, 174-193. [[Crossref](#)]
228. Goran M. Muhamad, Almas Heshmati, Nabaz T. Khayyat. 2020. The Dynamics of Private Sector Development in Natural Resource Dependent Countries. *Global Economic Review* 49:4, 396-421. [[Crossref](#)]
229. Sakiru Adebola Solarin. 2020. The effects of shale oil production, capital and labour on economic growth in the United States: A maximum likelihood analysis of the resource curse hypothesis. *Resources Policy* 68, 101799. [[Crossref](#)]
230. Zhonghua Cheng, Lianshui Li, Jun Liu. 2020. Natural resource abundance, resource industry dependence and economic green growth in China. *Resources Policy* 68, 101734. [[Crossref](#)]
231. Roberto Dell'Anno. 2020. Reconciling empirics on the political economy of the resource curse hypothesis. Evidence from long-run relationships between resource dependence, democracy and economic growth in Iran. *Resources Policy* 68, 101807. [[Crossref](#)]
232. Addisu A. Lashitew, Eric Werker. 2020. Do natural resources help or hinder development? Resource abundance, dependence, and the role of institutions. *Resource and Energy Economics* 61, 101183. [[Crossref](#)]
233. Victor C. Azubike. 2020. Critical government and national oil company role in their petroleum resource development: lessons for Guyana petroleum sector. *Commonwealth Law Bulletin* 46:3, 461-482. [[Crossref](#)]
234. Graham A. Davis. 2020. Large-sample evidence of income inequality in resource-rich nations. *Mineral Economics* 33:1-2, 193-216. [[Crossref](#)]
235. Said Nuhu, Lazaro Mngumi, Matilda Ntiyakunze, Daniel E. Msangi. 2020. Regulatory framework and natural gas activities: A curse or boon to host communities in Southern Tanzania?. *The Extractive Industries and Society* 7:3, 982-993. [[Crossref](#)]
236. Ruba A. Aljarallah. 2020. Natural resource dependency, institutional quality and human capital development in Gulf Countries. *Heliyon* 6:7, e04290. [[Crossref](#)]
237. Miguel Atienza, David Fleming-Muñoz, Patricio Aroca. 2020. Territorial development and mining. Insights and challenges from the Chilean case. *Resources Policy* 42, 101812. [[Crossref](#)]
238. Edward B. Barbier. 2020. Is green rural transformation possible in developing countries?. *World Development* 131, 104955. [[Crossref](#)]
239. Trumel Redmond, Muhammad Ali Nasir. 2020. Role of natural resource abundance, international trade and financial development in the economic development of selected countries. *Resources Policy* 66, 101591. [[Crossref](#)]
240. Haoying Wang. 2020. The economic impact of oil and gas development in the Permian Basin: Local and spillover effects. *Resources Policy* 66, 101599. [[Crossref](#)]
241. Michael Keller. 2020. Wasted windfalls: Inefficiencies in health care spending in oil rich countries. *Resources Policy* 66, 101618. [[Crossref](#)]
242. THOMAS GODA, JAN PRIEWE. 2020. Determinants of real exchange rate movements in 15 emerging market economies. *Brazilian Journal of Political Economy* 40:2, 214-237. [[Crossref](#)]

243. Ohad Raveh, Yacov Tsur. 2020. Resource windfalls and public debt: A political economy perspective. *European Economic Review* **123**, 103371. [[Crossref](#)]
244. Edward B. Barbier. 2020. Long run agricultural land expansion, booms and busts. *Land Use Policy* **93**, 103808. [[Crossref](#)]
245. Vincent Geronimi, Claire Mainguy. 2020. Exploitation minière et développement : des effets toujours controversés. Introduction. *Mondes en développement* n° **189**:1, 7-29. [[Crossref](#)]
246. Ohad Raveh. 2020. Monetary Policy, Natural Resources, and Federal Redistribution. *Environmental and Resource Economics* **75**:3, 585-613. [[Crossref](#)]
247. Remi Bazillier, Victoire Girard. 2020. The gold digger and the machine. Evidence on the distributive effect of the artisanal and industrial gold rushes in Burkina Faso. *Journal of Development Economics* **143**, 102411. [[Crossref](#)]
248. Nasr G. Elbahnasawy. 2020. Democracy, political instability, and government tax effort in hydrocarbon-dependent countries. *Resources Policy* **65**, 101530. [[Crossref](#)]
249. Muhammad Asif, Khan Burhan Khan, Muhammad Khalid Anser, Abdelmohsen A. Nassani, Muhammad Moinuddin Qazi Abro, Khalid Zaman. 2020. Dynamic interaction between financial development and natural resources: Evaluating the 'Resource curse' hypothesis. *Resources Policy* **65**, 101566. [[Crossref](#)]
250. Mashael M. Al Saud. Potential Natural Resources 87-120. [[Crossref](#)]
251. Bamidele A. Wale-Oshinowo, Ayokunle Olumuyiwa Omobowale, Mercy M. Adeyeye, Sorbarikor Lebura. Least Developed Countries in Africa 1-16. [[Crossref](#)]
252. Sami Ben Mim, Mohamed Sami Ben Ali. Natural Resources Curse and Economic Diversification in GCC Countries 1-18. [[Crossref](#)]
253. Xiaoping He, Dunguo Mou. 2020. Impacts of mineral resources: Evidence from county economies in China. *Energy Policy* **136**, 111088. [[Crossref](#)]
254. Da Huo, Yan Chen, Ken Hung, Zening Song, Jialin Guan, An Ji. 2020. Diamond model and the export competitiveness of the agriculture industry from emerging markets: an exploratory vision based on a spatial effect study using a genetic algorithm. *Economic Research-Ekonomska Istraživanja* **33**:1, 2427-2443. [[Crossref](#)]
255. Bulent Unel, Gregory Upton. 2020. Effects of the Shale Boom on Entrepreneurship in the U.S. *SSRN Electronic Journal* . [[Crossref](#)]
256. Morakinyo O. Adetutu, Thomas G. Weyman-Jones. 2019. Fuel Subsidies Versus Market Power: Is There a Countervailing Second-Best Optimum?. *Environmental and Resource Economics* **74**:4, 1619-1646. [[Crossref](#)]
257. Lionel Roger, Gregory Smith, Oliver Morrissey. 2019. Exchange Rate and Inflation Dynamics in a Resource Rich Setting: The Case of Zambia. *South African Journal of Economics* **87**:4, 490-514. [[Crossref](#)]
258. José Carlos Orihuela, Victor Gamarra Echenique. 2019. Volatile and spatially varied: The geographically differentiated economic outcomes of resource-based development in Peru, 2001-2015. *The Extractive Industries and Society* **6**:4, 1143-1155. [[Crossref](#)]
259. Sandra Carrillo Hoyos. 2019. Extractive industry revenues and the subnational resource curse: The case of the Peruvian Andes. *The Extractive Industries and Society* **6**:4, 1134-1142. [[Crossref](#)]
260. Edward B. Barbier, Joanne C. Burgess. 2019. Sustainable development goal indicators: Analyzing trade-offs and complementarities. *World Development* **122**, 295-305. [[Crossref](#)]
261. Stephen Fox. 2019. Moveable Production Systems for Sustainable Development and Trade: Limitations, Opportunities and Barriers. *Sustainability* **11**:19, 5154. [[Crossref](#)]

262. Edward B. Barbier. Natural Resources and Economic Development **9**, . [[Crossref](#)]
263. Frederick van der Ploeg. 2019. Macro policy responses to natural resource windfalls and the crash in commodity prices. *Journal of International Money and Finance* **96**, 263-282. [[Crossref](#)]
264. Fidel Perez-Sebastian, Ohad Raveh. 2019. Federal tax policies, congressional voting and natural resources. *Canadian Journal of Economics/Revue canadienne d'économique* **52:3**, 1112-1164. [[Crossref](#)]
265. Nouf Alsharif, Sambit Bhattacharyya. 2019. Oil Discovery, Political Institutions and Economic Diversification. *Scottish Journal of Political Economy* **66:3**, 459-488. [[Crossref](#)]
266. Feng Hao, Bethany L. Van Brown. 2019. An Analysis of Environmental and Economic Impacts of Fossil Fuel Production in the U.S. from 2001 to 2015. *Society & Natural Resources* **32:6**, 693-708. [[Crossref](#)]
267. Nemer Mamo, Sambit Bhattacharyya, Alexander Moradi. 2019. Intensive and extensive margins of mining and development: Evidence from Sub-Saharan Africa. *Journal of Development Economics* **139**, 28-49. [[Crossref](#)]
268. Rune Dahl Fitjar, Bram Timmermans. 2019. Relatedness and the Resource Curse: Is There a Liability of Relatedness?. *Economic Geography* **95:3**, 231-255. [[Crossref](#)]
269. Rabah Arezki, Frederick van der Ploeg, Frederik Toscani. 2019. The shifting natural wealth of nations: The role of market orientation. *Journal of Development Economics* **138**, 228-245. [[Crossref](#)]
270. Federico Carril-Caccia, Juliette Milgram-Baleix, Jordi Paniagua. 2019. Foreign Direct Investment in oil-abundant countries: The role of institutions. *PLOS ONE* **14:4**, e0215650. [[Crossref](#)]
271. P. Sai-wing Ho. 2019. Re-Examining the Development of Hirschman's Linkage Analysis with Detection of Smithian Flavor. *Review of Political Economy* **31:2**, 247-270. [[Crossref](#)]
272. José Carlos Orihuela, Carlos A. Pérez, César Huaroto. 2019. Do fiscal windfalls increase mining conflicts? Not always. *The Extractive Industries and Society* **6:2**, 313-318. [[Crossref](#)]
273. Adela Zubikova. 2019. The resource curse and its implications for fiscal policy. *Agricultural and Resource Economics: International Scientific E-Journal* **5:1**, 48-70. [[Crossref](#)]
274. Tiago Cavalcanti, Daniel Da Mata, Frederik Toscani. 2019. Winning the oil lottery: the impact of natural resource extraction on growth. *Journal of Economic Growth* **24:1**, 79-115. [[Crossref](#)]
275. Rajneesh Narula, André Pineli. 2019. Improving the developmental impact of multinational enterprises: policy and research challenges. *Journal of Industrial and Business Economics* **46:1**, 1-24. [[Crossref](#)]
276. Hua-ping Sun, Wei-feng Sun, Yong Geng, Xi Yang, Bless Kofi Edziah. 2019. How does natural resource dependence affect public education spending?. *Environmental Science and Pollution Research* **26:4**, 3666-3674. [[Crossref](#)]
277. Adrian Wood. 2019. Globalization and Structural Change around the World, 1985-2015. *The World Bank Research Observer* **34:1**, 65-94. [[Crossref](#)]
278. Pierre Jacquet, Alexis Atlani, Marwan Lisser. 2019. Quelles politiques pour répondre aux chocs des termes de l'échange ?. *Revue d'économie du développement* **Vol. 26:2**, 51-82. [[Crossref](#)]
279. Edward B Barbier. 2019. The concept of natural capital. *Oxford Review of Economic Policy* **35:1**, 14-36. [[Crossref](#)]
280. Angela Ajodo-Adebanjoko. 2019. Political economy and national security implications of resource-based conflicts in Nigeria. *African Security Review* **28:1**, 56-71. [[Crossref](#)]
281. Jan Otto Andersson. Ecological Unequal Exchange 1-14. [[Crossref](#)]
282. Jan Otto Andersson. Ecological Unequal Exchange 1-14. [[Crossref](#)]
283. Niko Jaakkola, Daniel Spiro, Arthur A. van Benthem. 2019. Finders, keepers?. *Journal of Public Economics* **169**, 17-33. [[Crossref](#)]

284. Krislert Samphantharak. 2019. Sectoral Development in Southeast Asia: Agriculture, Non-Renewable Natural Resources, Manufacture, and Services. *SSRN Electronic Journal* . [[Crossref](#)]
285. Matthew Oliver, Gregory Upton. 2019. Energy Endowments and Economic Growth. *SSRN Electronic Journal* . [[Crossref](#)]
286. Klaus Mohn. 2019. Arctic Oil and Public Finance: Norway's Lofoten Region and Beyond. *The Energy Journal* **40**:3, 199-226. [[Crossref](#)]
287. Virginija Kargytė, Rando Värnik, Vilija Aleknevičienė. 2018. ASSESSMENT OF BIOECONOMY DEVELOPMENT POTENTIAL FROM THE PERSPECTIVE OF INNOVATION ECONOMICS IN EUROPEAN REGIONS. *Management Theory and Studies for Rural Business and Infrastructure Development* **40**:4, 492-513. [[Crossref](#)]
288. I V Filimonova, L V Eder, A V Komarova, I V Provornaya, V Yu Nemov. 2018. Resource regions of Russia: socio-economic indicators and innovative development. *IOP Conference Series: Earth and Environmental Science* **206**, 012020. [[Crossref](#)]
289. Guillermo Sahonero-Alvarez. Blockchain and Peace Engineering and its Relationship to Engineering Education 1-6. [[Crossref](#)]
290. Halit Yanıkkaya, Taner Turan. 2018. Curse or Blessing? An Empirical Re-examination of Natural Resource-Growth Nexus. *Journal of International Development* **30**:8, 1455-1473. [[Crossref](#)]
291. Jorge Katz, Carlo Pietrobelli. 2018. Natural resource based growth, global value chains and domestic capabilities in the mining industry. *Resources Policy* **58**, 11-20. [[Crossref](#)]
292. Carlo Pietrobelli, Anabel Marin, Jocelyn Olivari. 2018. Innovation in mining value chains: New evidence from Latin America. *Resources Policy* **58**, 1-10. [[Crossref](#)]
293. Anita Doraisami. 2018. The Timor Leste Petroleum Fund, veterans and white elephants: Fostering intergenerational equity?. *Resources Policy* **58**, 250-256. [[Crossref](#)]
294. Martin Guzman, Jose Antonio Ocampo, Joseph E. Stiglitz. 2018. Real exchange rate policies for economic development. *World Development* **110**, 51-62. [[Crossref](#)]
295. Peter Volberding, Jason Warner. 2018. The uniqueness of uranium: The Problematics of Statecraft in Niger. *The Extractive Industries and Society* **5**:3, 294-301. [[Crossref](#)]
296. Philip Maxwell. 2018. The end of the mining boom? A Western Australian perspective. *Mineral Economics* **31**:1-2, 153-170. [[Crossref](#)]
297. Kym Anderson. 2018. Mining's impact on the competitiveness of other sectors in a resource-rich economy: Australia since the 1840s. *Mineral Economics* **31**:1-2, 141-151. [[Crossref](#)]
298. Thorvaldur Gylfason. 2018. Political economy, Mr. Churchill, and natural resources. *Mineral Economics* **31**:1-2, 23-34. [[Crossref](#)]
299. Cristián Ducoing, José Peres-Cajías, Marc Badia-Miró, Ann-Kristin Bergquist, Carlos Contreras, Kristin Ranestad, Sara Torregrosa. 2018. Natural Resources Curse in the Long Run? Bolivia, Chile and Peru in the Nordic Countries' Mirror. *Sustainability* **10**:4, 965. [[Crossref](#)]
300. Luis Antonio López, Guadalupe Arce, Tobias Kronenberg, João F.D. Rodrigues. 2018. Trade from resource-rich countries avoids the existence of a global pollution haven hypothesis. *Journal of Cleaner Production* **175**, 599-611. [[Crossref](#)]
301. JOSÉ CARLOS ORIHUELA. 2018. Institutions and place: bringing context back into the study of the resource curse. *Journal of Institutional Economics* **14**:1, 157-180. [[Crossref](#)]
302. James Cust, David Manley. The Carbon Wealth of Nations: From Rents to Risks 97-113. [[Crossref](#)]
303. Kym Anderson. Agricultural Development in Australia: 1845-2015 365-387. [[Crossref](#)]
304. Thorvaldur Gylfason, Gylfi Zoega. The Dutch Disease in Reverse: Iceland's Natural Experiment 13-36. [[Crossref](#)]

305. Rajneesh Narula. 2018. Multinational firms and the extractive sectors in the 21st century: Can they drive development?. *Journal of World Business* 53:1, 85-91. [[Crossref](#)]
306. Daniel Shapiro, Bersant Hobdari, Chang Hoon Oh. 2018. Natural resources, multinational enterprises and sustainable development 1 1We are indebted to Mike Peng, who in his role as the Supervising Editor provided valuable input and support throughout the process of creating this Special Issue. We also thank Jonathan Doh, Rajneesh Narula and Eric Werker for helpful comments. *Journal of World Business* 53:1, 1-14. [[Crossref](#)]
307. Ohad Raveh, Yacov Tsur. 2018. Resource Windfalls and Public Debt: The Role of Political Myopia. *SSRN Electronic Journal* 26. . [[Crossref](#)]
308. Hany Besada, Ben O'Bright. 2018. Policy Impacts on Africa's Extractive Sector: Botswana, Diamond Dependence, and Diversification in the Post-Diamond Period. *Revue Gouvernance* 15:2, 86-105. [[Crossref](#)]
309. Lorenzo Cotula. Reconsidering Sovereignty, Ownership and Consent in Natural Resource Contracts: From Concepts to Practice 143-174. [[Crossref](#)]
310. Eric Tamatey Lawer, Martin C. Lukas, Stig H. Jørgensen. 2017. The neglected role of local institutions in the 'resource curse' debate. Limestone mining in the Krobo region of Ghana. *Resources Policy* 54, 43-52. [[Crossref](#)]
311. Keisuke Okada, Sovannroeun Samreth. 2017. Corruption and natural resource rents: evidence from quantile regression. *Applied Economics Letters* 24:20, 1490-1493. [[Crossref](#)]
312. Nancy Olewiler. 2017. Canada's dependence on natural capital wealth: Was Innis wrong?. *Canadian Journal of Economics/Revue canadienne d'économique* 50:4, 927-964. [[Crossref](#)]
313. Vanessa Bach, Natalia Finogenova, Markus Berger, Lisa Winter, Matthias Finkbeiner. 2017. Enhancing the assessment of critical resource use at the country level with the SCARCE method – Case study of Germany. *Resources Policy* 53, 283-299. [[Crossref](#)]
314. Frederick van der Ploeg. 2017. Blood Oil: Tyrants, Violence and the Rules that Run the World, Leif Wenar. Oxford University Press, 2016, lii + 494 pages. *Economics and Philosophy* 33:2, 320-325. [[Crossref](#)]
315. Aleksandra Malova, Frederick van der Ploeg. 2017. Consequences of lower oil prices and stranded assets for Russia's sustainable fiscal stance. *Energy Policy* 105, 27-40. [[Crossref](#)]
316. Nouf Alsharif, Sambit Bhattacharyya, Maurizio Intartaglia. 2017. Economic diversification in resource rich countries: History, state of knowledge and research agenda. *Resources Policy* 52, 154-164. [[Crossref](#)]
317. Peter D. Cameron, Michael C. Stanley. Extractives: Opportunities and Challenges for Development 19-37. [[Crossref](#)]
318. Bénédicte de la Brière, Deon Filmer, Dena Ringold, Dominic Rohner, Karelle Samuda, Anastasiya Denisova. Human Capital in Resource-Rich Countries 31-58. [[Crossref](#)]
319. Bénédicte de la Brière, Deon Filmer, Dena Ringold, Dominic Rohner, Karelle Samuda, Anastasiya Denisova. Overview 1-30. [[Crossref](#)]
320. Ramez Abubakr Badeeb, Hooi Hooi Lean, Jeremy Clark. 2017. The evolution of the natural resource curse thesis: A critical literature survey. *Resources Policy* 51, 123-134. [[Crossref](#)]
321. Kym Anderson. 2017. Sectoral Trends and Shocks in Australia's Economic Growth. *Australian Economic History Review* 57:1, 2-21. [[Crossref](#)]
322. Fidel Perez Sebastian, Ohad Raveh. 2017. Federal Tax Policies, Congressional Voting, and the Fiscal Advantage of Natural Resources. *SSRN Electronic Journal* . [[Crossref](#)]

323. Nadav Ben Zeev, Ohad Raveh. 2017. Monetary Policy, Fiscal Federalism, and Capital Intensity. *SSRN Electronic Journal* . [[Crossref](#)]
324. Stanislao Maldonado. 2017. The Non-Monotonic Political Effects of Resource Booms. *SSRN Electronic Journal* . [[Crossref](#)]
325. David Manley, James Frederick Cust, Giorgia Cecchinato. 2017. Stranded Nations? The Climate Policy Implications for Fossil Fuel-Rich Developing Countries. *SSRN Electronic Journal* . [[Crossref](#)]
326. Frederik Toscani. 2017. The Impact of Natural Resource Discoveries in Latin America and the Caribbean: A Closer Look at the Case of Bolivia. *IMF Working Papers* 17:27, 1. [[Crossref](#)]
327. Rafael Emmanuel “Manny” Macatangay. 2016. Optimal local content requirement policies for extractive industries. *Resources Policy* 50, 244-252. [[Crossref](#)]
328. Anthony J. Venables, Samuel E. Wills. 2016. Resource Funds: Stabilising, Parking, and Intergenerational Transfer. *Journal of African Economies* 25:suppl 2, ii20-ii40. [[Crossref](#)]
329. Steven J Davis, Noah Diffenbaugh. 2016. Dislocated interests and climate change. *Environmental Research Letters* 11:6, 061001. [[Crossref](#)]
330. László Csaba. 2016. Új utakon a világ közgazdaság-tudománya : Gondolatok D. N. McCloskey: Bourgeois Equality című monográfiája kapcsán. *Közgazdasági Szemle* 63:7-8, 882-888. [[Crossref](#)]
331. Luis Martinez. 2016. Sources of Revenue and Government Performance: Evidence from Colombia. *SSRN Electronic Journal* 91. . [[Crossref](#)]