



# Taxing Challenges

**The Challenge of Mineral Wealth:**  
using resource endowments to foster  
sustainable development

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**Taxes on mining firms have recently been the subject of intense debate in a number of countries. Initial findings from the Resource Endowment initiative suggest, however, that development outcomes from mining are driven by a set of factors much broader than tax levels alone**

In most countries for most of the time, debates about mining taxes rarely arouse great passions – except perhaps among accountants or fiscal economists. But in recent years, as higher mineral prices have encouraged governments to look for ways to capture more of the profits earned by mining firms, such taxes have become a heated political issue in a number of countries.

In Chile, for example, an additional mining tax was recently imposed following complaints – disputed by the industry – that private-sector mining firms were paying too little to the government. To many of the industry's critics, it seemed self-evident that raising more revenues from mining was in the national interest. Others, however, argued that the fact that Chile had historically set taxes at attractive levels for private firms had been critical to boosting investment in mining over the years and in driving the success of the industry. In the late 1990s and early 2000s, Chile's policies towards mining had been ranked as among the most attractive of any country in the regular surveys of industry perceptions conducted by the Fraser Institute, the Canadian research organization. Chile is also among the most economically-successful mineral-rich countries, and mining investment appears to have been among the factors behind its sustained economic growth and falls in poverty.

A detailed review of mineral taxation regimes is shortly due to be commissioned as part of the Resource Endowment initiative, a project examining ways of enhancing the socio-economic impacts of mining (see Spotlight series 01-05 for an overview). Like other research in the initiative, this will be overseen by an independent advisory group, and its results published upon completion. This initial spotlight aims simply to provide a starting point for discussions on tax by briefly highlighting a few relevant findings from the research conducted so far – in particular from detailed case studies commissioned on Chile, and also Peru, Ghana and Tanzania. The aim of these case studies was to understand the overall relationship between mining and development outcomes. However, tax was among the issues considered in the case studies.

The main point apparent from the case studies from a tax perspective is that – while tax regimes are clearly an important determinant of mining investment, and need to be carefully designed – differences in actual development outcomes from mining are driven by a complex range of factors, including not just tax levels, but also various aspects of governance in host countries. The impact of potential changes in tax regimes thus needs to be evaluated in the context of these broader factors.

Among other things, this means that bald claims in favor of either lowering or raising taxes – that is arguments from either side of the debate – may need to be treated with caution. For example, raising taxes may or may not serve the national interest depending not just on the impact of such changes on the future willingness of firms to invest but also on the quality of governance in the country concerned (such as the way mineral revenues are spent). Similarly claims that lower taxes, by encouraging investment, are the key to improving development outcomes risk underplaying the role of other drivers too. In Chile, it is true, impressive outcomes appear to have been achieved from mining alongside a tax regime historically favorable to private investors. But this appears to have had at least as much to do with the country's pursuit of sound economic policies and its development of effective and accountable state institutions.

## **In the balance**

Before providing more detail on this, it may help to briefly set some context on the overall scope of mineral taxation regimes and also the challenges facing governments in designing them. Mining company contributions to government revenues, for example, typically encompass not just income taxes and royalties, but also a range other taxes such as VAT, property, payroll and withholding taxes. Direct social provision by companies, such as building roads or funding schools, may also need to be taken into account as this sometimes substitutes for direct spending by governments.

A toolkit<sup>1</sup> has been developed as part of the Resource Endowment initiative to measure the overall economic impacts from mining projects. This includes frameworks defining the range of potential company contributions to government revenues and also of corporate social provision. Just as companies may contribute in a variety of ways, so governments may employ a variety of institutional arrangements to spend and distribute revenues raised from mining. Key variables here include levels of transparency, and also whether special mechanisms exist to redistribute revenues back to mining regions.

From governments' perspective, the core challenge in designing tax regimes is how to maximize government revenues from mining over the long term. Setting tax rates too high risks deterring investment, thereby holding back the growth of the industry, and thus reducing the long-term tax revenues generated. Mining firms undoubtedly see tax levels as among the more important factors – along with a country's mineral potential and legal stability, for example – in deciding whether to invest, and they may have a variety of potential investment projects across the globe from which to choose. Conversely, by setting tax rates too low, governments risk raising too little revenue from the industry and thus reducing the resources available for spending on development.

A related complexity in the design of tax regimes is how to share the risk of fluctuations in prices and costs between investors and the government over time. However this is achieved, investors typically will seek long-term predictability of fiscal terms for a given project. This might be achieved,

<sup>1</sup> Resource Endowment Toolkit, April 2006:  
[www.icmm.com/publications/1251REtoolkit.pdf](http://www.icmm.com/publications/1251REtoolkit.pdf)

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for example, through a long-term tax stability agreement with the government. Governments, however, may face short-term political pressures which encourage them to focus on maximizing revenues this year or next by raising taxes even if this entails revising tax rules for existing projects (and thus potentially putting off investors in the future).

Governments also need to bear in mind that the structure of the tax system, as well as the overall tax burden, may impact on firms’ incentives to invest: for example, a tax system based on royalties levied for each unit of output, rather than just on taxing firm’s profits, may discourage production in economically-marginal mines. Balancing this, governments also need to consider the relative difficulties of administering different systems: for example, profit taxes can be harder to administer than royalties, requiring monitoring of ‘transfer pricing’ within firms, and setting sensible rules on the allowable pace of cost recovery and depreciation of assets.

The last few decades have seen a consensus emerge in many countries in favor of re-balancing tax regimes so as to attract more investment in mining (and indeed foreign investment as a whole). Income and withholding taxes have been reduced, for example, and exemptions from import and export duties granted. More recently, as noted, debates over mining taxes have reopened in some countries. The reason for this is partly the record rise in mineral prices (with a particular concern of governments often being the perceived or real failure of profit taxes to raise satisfactory revenues). Another trigger, importantly, has sometimes been broader dissatisfaction with the economic benefits perceived to be generated by mining. This has found a perhaps convenient political focus in calls to levy higher taxes on mining firms.

**Cases in point**

So what do the four country case studies indicate about the relationship between tax regimes and development outcomes? The countries – Peru, Chile, Ghana and Tanzania

– had been selected for study on the basis that all had achieved relatively positive development outcomes compared with other mineral dependent economies. The research focused in particular on comparing Peru with Chile, and also Ghana with Tanzania, so as to identify more clearly the drivers of improved performance. Also one large-scale mine was chosen in each country as a particular focus for analysis.

All four countries were found to have broadly followed the pattern noted above. That is, following a period of low or minimal foreign investment in their mining sectors, all had undertaken economic and policy reforms, including various revisions to their mineral legislation and tax regimes, mostly from the 1980s onwards. This had in turn set the basis for a major upsurge in mining investment. Though sometimes a significant time lag was involved between the policy changes and the investment surge (as in the case of Chile), the scale of the industry’s response was often dramatic: in Peru, for example, domestic and foreign mining companies invested about \$9.8 billion between 1992 and 2004. Then in more recent years the adequacy of the tax regime had become a subject of vigorous debate in many of the countries, the case studies found.

Each of the case studies also estimated the tax and economic contributions both of the mining sector as a whole and of the particular mine studied (see Spotlight series 06-09 for more details). For example, in Peru it was found that mining contributed around 7% of GDP and some 5% of the government’s total tax intake in 2003. The particular mine studied in Peru, the Antamina mine, was calculated to have contributed some \$319 million to the national economy in 2005 in terms of taxes and payments to public authorities, plus a further \$343 million in terms of other contributions, such as creating jobs and procuring goods from within the country.

In terms of development outcomes, it was found that the surge in mining investment which mostly occurred from the 1990s onwards in all four countries had coincided with a period of relatively positive, and often improved, economic performance (though it was not possible to prove mining was actually a cause of this).

But there were also interesting differences between the countries. Chile, for example, had achieved both sustained GDP growth (over 5% on average between 1990 and 2003), and also major falls in poverty (between 1990 and 2000 the proportion of the population below the poverty line fell from 39% to 21%) – including particularly rapid declines in poverty in mining regions. In Peru, by contrast, while recent economic performance had also been relatively positive, poverty levels have remained stubbornly high (more than half the population lives in poverty and nearly a quarter in extreme poverty, the case study reported).

Some similar contrasts were apparent between Ghana and Tanzania. In Ghana, as in Chile, sustained economic growth had been matched by significant falls in poverty (the incidence of income poverty fell from 52% in 1990 to 40% in 1999) and again these were particularly steep in mining regions. In Tanzania, meanwhile, a recent economic resurgence had yet to make any significant dent in national poverty statistics (though such impacts would normally take years to become apparent).

This document is one of a series of publications produced by ICMM under its Resource Endowment initiative, which aims to better understand how large scale mining activity in low and middle income countries impacts the socio-economic development of host countries. This action-research project is being done together with UNCTAD and the World Bank Group, with broad stakeholder engagement. For the latest information on the initiative, including details of publications, activities and partners visit [www.icmm.com](http://www.icmm.com)

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### Multiple drivers

Importantly, comparing the mining tax regimes of the different countries only goes so far in explaining the differences in these development outcomes. Admittedly, the Fraser Institute survey of industry perceptions mentioned at the start of this note shows (in its 2004/5 edition, the version referred to by the case studies as the latest available at the time), that Chile was then perceived to have a more favorable tax regime than Peru, and likewise Ghana was preferred to Tanzania. The very latest Fraser survey, the 2006/7 version, shows a similar pattern (except that this time Peru ranks below both Ghana and Tanzania).

But while this shows that it is *possible* for countries perceived to have more investor-friendly tax regimes to achieve stronger development outcomes than countries viewed less favorably by investors, too many other factors are at play to indicate any causal link in this respect. For example, Ghana's superior development outcomes compared with Tanzania also may be explained by, among other things, the simple fact that Ghana has been the recipient of investment by foreign mining firms, and the tax revenues they bring, for more years than has Tanzania.

This leads to the fundamental point relevant to tax which springs from the case studies: though political arguments have recently focused around tax levels, a cluster of other factors showed themselves to be at least as important in explaining the varying development outcomes from mining. These other factors included not just how long mining investment had been flowing, but also the broader policy framework facing mining, national economic policies, supply chain arrangements, and the quality of governance.

In terms of economic policies, for example, the case studies pointed to the importance of, among other things, careful management both of public spending and of exchange rates. Such an approach is important not just to create a stable climate for mining investment but also to encourage the growth of non-mining sectors. Chile has generally performed better for longer in terms of macroeconomic management than has Peru.

In terms of governance, well-managed, accountable institutions and transparent raising and spending of tax revenues were also shown to be important. Most of the case study countries had recently improved aspects of their governance (as measured by the World Bank composite governance indicators), with Chile's performance in this area again proving particularly strong. For many mineral rich countries, one potentially-powerful mechanism for improving revenue transparency, a key aspect of governance, is participation by host governments, and investing companies, in the Extractive Industries Transparency Initiative.

The case studies also found that, within mining regions, weak governance at the sub-national level was often holding back improved development outcomes. Particularly in countries such as Peru where increasing volumes of tax revenues from mining have recently been channeled back to mining regions (through the 'Canon Minero' in Peru's case), the capacity of sub-national governments may need to be significantly strengthened if revenues are to be spent as effectively as possible, the research suggested.

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This is not to argue – as some commentators have done – that governance at the national and regional levels needs to be perfected before countries should open themselves up to mining investment: that would risk condemning many poor developing countries to continued exclusion from the global economy. Nonetheless governments, supported by companies and other stakeholders wherever possible, may need to pursue governance improvements alongside such investment.

A further important factor, the case studies found, was efforts undertaken to develop linkages between mining and the broader economy. This included programs by individual firms to recruit, train and procure locally, and also broader partnerships between companies and governments to support the development of a domestic supply chain for the industry. Once more, Chile appeared to have developed particularly innovative and effective practices in this area.

In general, for all these non-tax factors, the case studies highlighted the importance of developing new forms of partnerships between governments, companies, and other stakeholders. While the onus is on governments to lead in many of these areas, companies – together with development agencies and civil society – ought to contribute proactively to solutions too. ICMM and its members are strongly committed to such an approach (see [www.icmm.com](http://www.icmm.com) for relevant ICMM policy commitments and partnerships).

Citing these other factors is not to suggest that tax levels on mining are not a subject of legitimate debate. Tax regimes clearly must be perceived to be fair and equitable. There also may be ways to adjust them without damaging firms' incentives to invest. Such issues will be examined in the detailed review of tax regimes to be conducted as part of the Resource Endowment initiative. What the evidence from the case studies does suggest, however, is that debates about tax levels should not obscure the bigger picture: that is, that taxes are just one among a complex host of factors and policy levers which together drive development outcomes from mining.

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