

Research Paper

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Angola's Infrastructure Ambitions Through Booms and Busts Policy, Governance and Reform



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Summary

- In the past decade and a half, Angola has prioritized the repair, expansion and modernization of its infrastructure as a central element of post-civil war reconstruction and economic development. Investment was initially supported by an oil-led economic boom, with annual real GDP growth averaging 9.1 per cent in 2006–14. However, favourable macroeconomic conditions and abundant financing – supported by oil revenues and Chinese credit lines – were not matched by robust governance. The result was that Angola failed to use its post-war hydrocarbons windfall efficiently to rebuild its crumbling infrastructure.
- Among key shortcomings, oversight of public investment was weak, targets were overambitious, and budget assumptions unrealistic. Planning did not adequately consider issues such as project feasibility, absorption capacity or corruption risks. Projects overemphasized transportation at the expense of other areas of infrastructure. Moreover, pro-cyclical financing resulted in the build-up of public debt and exacerbated a structural vulnerability to fluctuations in oil prices. The effects of such problems became more apparent once the economic cycle shifted.
- Since mid-2014, Angola has faced a far more challenging economic context, with lower international oil prices in particular responsible for fiscal constraints that raise uncertainty over the next phase (2018–22) of the government's development programme. The authorities' failure, during the boom years, to establish adequately funded revenue-stabilization mechanisms in a timely manner subsequently made it harder for policymakers to respond effectively to the post-2014 economic crisis.
- Efforts are now being made to strengthen control and oversight of infrastructure projects. Government ministries have been restructured and new bodies created. Responsibility for the Public Investment Programme (PIP) and the integrated public investment management system (SIPIP) has been shifted to the Ministry of Finance. In theory, this should make it easier to incorporate infrastructure spending projections into national budget planning, and to develop a more realistic and sustainable portfolio of infrastructure projects. The legal framework for procurement has also been updated. However, it remains to be seen if institutional changes will deliver meaningful improvements in practice.
- The Angolan context requires particular emphasis on reforms that promote transparency and accountability. The new National Procurement Portal needs to become fully operational as soon as possible and list all ongoing tender processes. The government should also make public the registry of construction companies involved in public works projects.

1. Introduction

In the past decade and a half, Angola has prioritized the repair, expansion and modernization of infrastructure as a central element of post-civil war reconstruction and economic development. However, deficient governance has posed – and continues to pose – serious challenges to this project. Among other things, it has led to the mismanagement of resources, has undermined project quality, has reduced value for money from public investments, and has contributed over time to increased pressures on the public finances.

This paper reviews infrastructure policy in Angola principally between 2003 and 2016 (with particular attention given to the decade between 2006 and 2015). It takes into account the implications of a highly specific set of circumstances during the post-war period: an economic boom, driven by high oil prices, that rapidly lifted incomes and boosted public revenues;¹ the ready availability of external credit to complement hydrocarbon revenues as a source of infrastructure funding; and, more recently, a transition from mid-2014 to a context of lower international oil prices, with all the fiscal constraints that this implies for the next phase (2018–22) of the government's development programme.

The analysis focuses on the governance challenges associated with infrastructure development and public investment; the impact of such challenges on planning and delivery of public infrastructure; and the mixed record thus far of policymakers' efforts to improve the institutional framework. The government's plans for infrastructure development since the end of the civil war in 2002 have been overambitious and self-defeating. The advantages conferred on Angola by rapid GDP growth and abundant capital have been offset by insufficient capacity, a lack of transparency, low levels of skilled labour, corruption and unbalanced planning. The use of public funds has lacked proper oversight; budget assumptions have been unrealistic; planning has overemphasized transportation at the expense of other areas of infrastructure; and financing has been pro-cyclical, with debt accumulating rapidly both before and after the onset of the economic crisis in 2014.

The country, in short, failed to use its oil windfall as effectively as it could have done in the years covered by this study, and the emergence of more challenging economic conditions has seriously tested the ability of the government to continue financing capital investment projects and maintain existing infrastructure.

Above all, these difficulties have shown that the need for improved governance is greater than ever. While this paper assesses the governance of infrastructure development *before* the 2017 change of national leadership – when President José Eduardo dos Santos, in power since 1979, was succeeded by João Lourenço – its lessons and recommendations remain pertinent to the issues that the current administration will need to address. In particular, the economic climate of the past few years has illustrated the need for robust institutional arrangements capable of supporting inclusive growth and enabling better use of state resources. Since taking office in 2017, President Lourenço has initiated a series of economic reforms that, broadly speaking, have a strong focus on improving

¹ International Monetary Fund (IMF) (2018), World Economic Outlook Database, January 2018, http://www.imf.org/external/pubs/ft/weo/2017/02/weodata/weorept.aspx?sy=2000&ey=2019&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=47&pr1.y=13&c=614&s=NGDP_RPCH%2CGGR_NGDP&grp=0&a= (accessed 20 Feb. 2018).

governance, tackling corruption and patronage, and ending unnatural near-monopolies (most notably in the cement and telecoms sectors). The articulated aim of these reforms is to put in place a legal environment that facilitates business, free enterprise and competition.

The reforms announced include some that directly and indirectly address infrastructure governance, although these are yet to be developed in detail and implemented. One of President Lourenço's first acts was to announce the formation of a new Ministry of Economy and Planning, merging the previous Ministry of Planning and Territorial Development and Ministry of Economy.

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In particular, a more realistic approach to infrastructure planning requires better links between the medium-term budget framework and the national budget. One of the key challenges in the past in managing public investments has been the separation of the Public Investment Programme (PIP) from the national budget. This implies, for example, that operational and maintenance costs throughout project lifecycles were not taken into account in the preparation of financial estimates of the cost of PIP projects to the national budget. Vitally, responsibility for the PIP and the integrated public investment management system (SIPIP) has now been placed with the Ministry of Finance, rather than with the new Ministry of Economy and Planning. This should make it easier to develop a more realistic and sustainable portfolio of infrastructure projects both in the annual PIP and the government's National Development Plan (NDP).

Plans have also been announced to strengthen control and oversight of infrastructure projects. This is crucial for addressing the mismanagement of public investment, as well as for tackling the broader anti-corruption agenda. Key institutions that will be involved in this initiative are the Civil Engineering Studies Centre (*Laboratório de Engenharia de Angola*), and a new Institute for Public Works (*Instituto de Obras Públicas*) formed on the foundations of the existing National Project Elaboration Enterprise (*Empresa Nacional de Elaboração de Projetos*). The National Project Elaboration Enterprise will reportedly be responsible for establishing rules and regulations on project preparation, implementation, specifications, tender procedures and inspection of works. It remains to be seen if these institutions will be able to deliver on their objectives, however.

Context and background

The period from 2006 to 2014 was characterized by extremely rapid economic growth² and expansionary fiscal policy – a dynamic only briefly interrupted by fallout from the 2008 global financial crisis. Growth driven by high oil prices and increased oil production had a dramatic impact on a country recovering from decades of war: GDP per capita soared from US\$711 in 2002 to US\$4,804 in 2013,

² Real GDP growth averaged 9.1 per cent a year, and peaked at 22.6 per cent in 2007, according to IMF data. IMF (2018), World Economic Outlook Database, January 2018, http://www.imf.org/external/pubs/ft/weo/2017/02/weodata/weorept.aspx?sy=2006&ey=2014&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=55&pr1.y=9&c=614&s=NGDP_RPCH&grp=0&a= (accessed 20 Feb. 2018).

with government revenue skyrocketing in the same period.³ This also meant a rapid ascent for Angola within the World Bank's country classification system, from the level of low-income country to that of upper-middle-income country.⁴

Yet massive disparities in income and wealth remain. This reflects the significant difficulties the government has faced in translating oil revenues into improved living conditions for the majority of the population. Infant and maternal mortality rates remain among the highest in the world. Notwithstanding its rise in the World Bank's economic categorization, Angola continues to share many of the characteristics of very poor countries. It is still classified by the UN as a 'least developed country' (LDC), one of 47 worldwide.⁵ As a result of the domestic economic crisis that began in 2014, Angola's per capita income dropped sharply and its World Bank classification fell back to that of a lower-middle-income country in 2017.⁶

Angola's governance deficiencies and enduring development challenges were exposed, in particular, by the mid-2014 fall in international oil prices – from over US\$110 a barrel (on average for Angola's oil exports) to below US\$50 a barrel. This highlighted the country's vulnerability to fluctuations in oil prices and sent shockwaves through the economy, leading to a significant depreciation of the kwanza, soaring inflation and a sharp rise in public debt, among other problems. Managing this crisis would have been easier if sources of government revenue had been diversified, or if significant savings had been achieved during the years of prosperity. The downturn further underlined the importance of rebuilding the country's civil infrastructure: both because of the role of capital investment in generating economic growth, creating jobs and providing opportunities for local business; and because of infrastructure's beneficial long-term impact on productivity, competition and the quality of public services.

The background to this crisis was the government's strong political commitment to rebuilding infrastructure after the end of the civil war. The challenge was immense after decades of conflict and neglect. The leadership set ambitious goals for investment in road networks, railways, ports, airports, energy, water systems and irrigation – goals that were reflected in a series of development plans and programmes. Although a few places such as the capital, Luanda, and major provincial cities had seen some additions or upgrades to their infrastructure during the war, they also needed further investment: their populations had grown so rapidly as a result of internal displacement that the capacity of existing infrastructure had been overwhelmed. Over the years, roads and energy became the government's main development priorities.

The post-conflict situation with regard to infrastructure development was distinctive due to Angola's unusually strong access to finance. An abundant supply of capital from oil revenues was boosted by a series of credit lines, most of which were extended by China. As a result, Angola found itself in the rare situation of not having to worry unduly about how it would finance its infrastructure plans. For most other countries, infrastructure planning invariably turns to the issue of where the financing is going to come *from* – in other words, how to close the 'financing gap'. But this was not an issue for Angola, which instead offers a case study in the challenges of managing large amounts of infrastructure funding efficiently. The country's experience is especially instructive in understanding governance issues around public investments in infrastructure.

³ GDP per capita in current US\$. World Bank Databank, <https://data.worldbank.org/country/angola>.

⁴ For an overview of the World Bank's country classification system, see World Bank (undated), 'How are the income group thresholds determined?', <https://datahelpdesk.worldbank.org/knowledgebase/articles/378833-how-are-the-income-group-thresholds-determined>.

⁵ Angola started a five-year graduation process from LDC status in early 2016. For an overview of the LDC classification, see <https://www.un.org/development/desa/dpad/least-developed-country-category.html>.

⁶ World Bank (2017), 'New country classifications by income level: 2017–2018', TheDATABlog, 1 July 2017, <https://blogs.worldbank.org/opendata/edutech/new-country-classifications-income-level-2017-2018>.

2. Financing, Political Priorities, Allocation and Spending

This chapter outlines the origins of Angola's post-war fiscal situation. It illustrates how the government prioritized infrastructure investments and allocated significant public resources to infrastructure projects. Using the energy and transport sectors as examples, the chapter assesses what Angola gained from its investments, and whether objectives were set and achieved. While analysis is constrained by the limited availability of disaggregated data detailing infrastructure investments and outputs, it has been possible to gather sufficient data to provide a sense of the limited results achieved in these two sectors.

Official figures for government revenue show that, between 2006 and 2015, the country collected a staggering US\$267.2 billion in oil-related receipts. This sum includes taxes collected directly from oil companies, as well as proceeds from the state-owned oil company, Sonangol.⁷ As can be seen in Figure 1, the revenue stream was volatile even in the years generally characterized by high oil prices. Nonetheless, on average the government secured around US\$27 billion per year during the decade. By comparison, the entire sum of development aid provided to Africa in 2013 amounted to US\$55.7 billion.⁸ In the same year, Angola's oil revenue was US\$37.1 billion.

In addition to receiving oil revenue, the Angolan government negotiated a series of credit lines with Chinese financial institutions. These credit lines were used predominantly to finance infrastructure investments.⁹ While the arrangements were substantially less transparent than public-sector oil revenues, it is known that the most recent extension of such credit lines was negotiated during an official visit by President dos Santos to China in October 2015, when a reported US\$6 billion was promised. If accurate, this would bring the accumulated stock of debt under Chinese credit lines to US\$35 billion, a sum corresponding to an average of roughly US\$3 billion per year over the preceding decade.¹⁰

These figures confirm that Angola has been effectively awash with cash since the mid-2000s, a situation that in turn raises important questions about governance. Analysis of Angola's oil-driven boom and the implications for infrastructure development must consider best practice in management of revenues derived from exhaustible natural resources. Options range from using the money to clear government debts and invest in physical assets on a 'spend as you go' basis to creating funds for stabilization or pure saving/investment purposes. In the early post-war years, the government took a relatively cautious approach, with public investments not exceeding 6 per cent of GDP. However, amid rising oil prices and mounting pressures on the ruling People's Movement for the Liberation of Angola (MPLA) to demonstrate tangible economic progress before the country's first post-war elections, the government

⁷ The figure is derived from a time series of annual background budget analysis reports (*Relatório de Fundamentação*) covering the period 2008–17. In each of these reports, the Ministry of Finance presents the government's fiscal framework covering the budget year as well as the three previous years, based on actual (rather than budgeted) figures. All figures are nominal, based on figures denominated in kwanza and average annual official exchange rates.

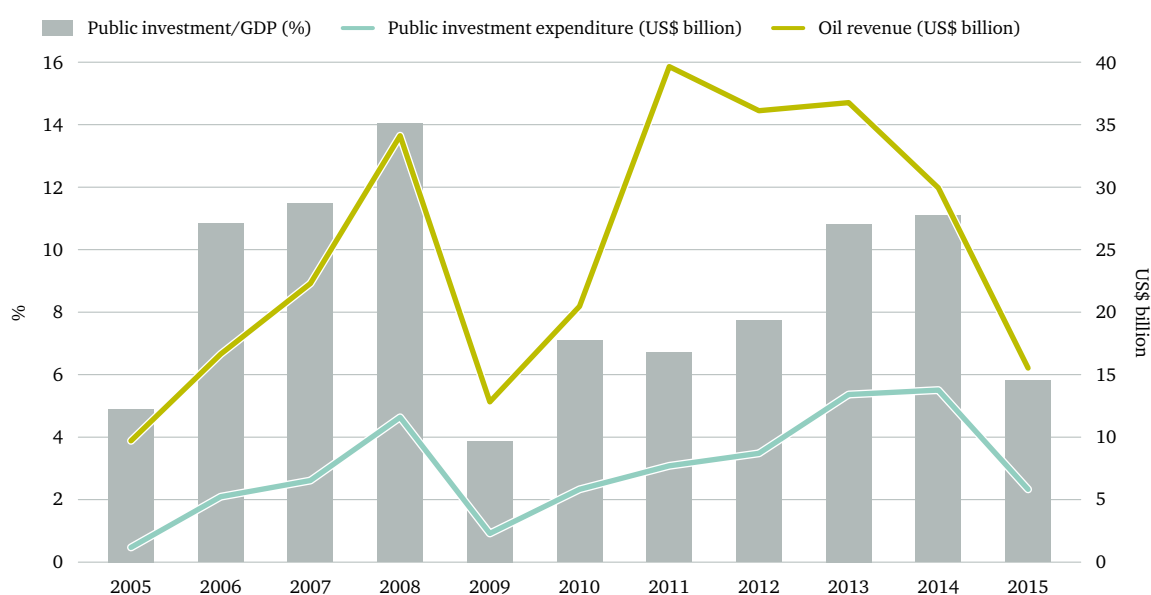
⁸ Organisation for Economic Co-operation and Development (OECD) (2015), *Development Aid At A Glance: Statistics By Region: 2. Africa, 2015 edition*, Paris: OECD, <https://www.oecd.org/dac/stats/documentupload/2%20Africa%20-%20Development%20Aid%20at%20a%20Glance%202015.pdf> (accessed 9 Feb. 2018).

⁹ Angola has negotiated credit lines with other countries, in particular Brazil, for similar purposes. However, the value of the credit lines with China vastly outstrips the value of those with all other countries.

¹⁰ The first Chinese credit line was agreed in 2004. Interview in Luanda, February 2016.

increased spending steeply. At the same time, an ever-larger share of resource revenue was spent rather than saved or prudently managed. Given that oil prices during this period exceeded relatively conservative budget estimates, the government ended up collecting more revenue than anticipated. In 2003–05, the government spent 40 per cent of this excess revenue and saved 60 per cent. However, in 2006–08 spending was equivalent to 140 per cent of excess revenue, which resulted in a growing budget deficit.¹¹ In other words, there was a marked shift away from the relatively cautious fiscal approach of the early post-war years.

Figure 1: Public investment vs oil revenue



Source: Author's calculations based on primary data from *Relatório de Fundamentação 2007–2011* and 2016, as well as *Conta Geral do Estado 2010–2014*, www.minfin.gov.ao.

The post-civil war infrastructure investment boom can be broken down for analytical purposes into three distinct periods: the early post-war years of 2002–05, when US\$4.2 billion (US\$1.1 billion per annum) was spent; the mid-post-war years of 2006–09, when US\$26.9 billion (US\$6.7 billion per annum) was spent; and the late post-war years of 2010–15, when US\$56.3 billion (US\$9.4 billion per annum) was spent.¹² In total, spending amounted to US\$87.5 billion, corresponding to roughly a third of oil revenue.¹³ As Figure 1 illustrates, the rise in investment not only coincided with rapid GDP growth but was also a function of the increased role of public-sector capital spending in the economy. As a share of GDP, public investment increased sharply between 2005 and 2008, peaking

¹¹ IMF (2012), *Angola, 2012 Article IV Consultation and Post Program Monitoring*, Washington, DC: IMF, p. 37.

¹² It should be noted that these figures are derived from two different sources, which reduces the quality of the data. From 2010, Angola started publishing yearly budget execution reports (*Conta Geral do Estado*), accounting specifically for the money spent on the government's Public Investment Programme (PIP). In these reports, the figures for 2009–14 relate precisely to the amounts spent on public investments (of which the vast majority are in infrastructure). For 2002–08, the figures are derived from the annual background budget analysis reports (*Relatório de Fundamentação*) – see footnote 7. These detail the amounts spent on the acquisition of non-financial assets, which include other minor budget items. Hence, these values are slightly above those relating to specific spending on the PIP.

¹³ Some of this would include projects financed through the Chinese credit lines, but the picture is obscured by a lack of transparency and the fact that many of the projects were not included in government budgets. According to an unpublished study, only about 60–70 per cent of projects funded by these credit lines were included in the PIP. See Soreide, T., da Rocha, A., Pestana, N., Santos, R. and Costa, A. (unpublished), 'Towards "value for money" in Angolan construction projects', CMI, CEIC and Open Society Angola, p. 89.

at 14 per cent. The global financial crisis led to public investment plummeting to 4 per cent of GDP in 2009, before a gradual recovery to 11 per cent of GDP in 2014. Figure 1 also clearly suggests that fluctuations in oil revenue were a factor in determining levels of infrastructure investment.

In 2011, an ambitious study of infrastructure development in Angola was published as part of the World Bank-led Africa Infrastructure Country Diagnostic (hereafter referred to as the 'AICD study') project.¹⁴ The study found that, although Angola's infrastructure needs were considerable, a 'basic infrastructure platform' could be established by investing US\$2.1 billion per year for a decade, with 70 per cent of the overall amount required for capital investments and 30 per cent required for maintenance. The study also claimed that meeting Angola's infrastructure needs would entail spending in the region of 7 per cent of GDP,¹⁵ compared with an average of 14.5 per cent in sub-Saharan Africa as a whole. However, the AICD study warned that Angola's infrastructure investment strategy was skewed towards transportation projects. It also identified massive inefficiencies that have raised actual infrastructure spending to around US\$4.3 billion per year, or around double the estimated amount needed. As illustrated above, actual spending since 2011 seems to have exceeded even these figures by some distance; according to the AICD study, Angola should have been able to satisfy its infrastructure needs both in terms of investments and maintenance, yet could not do so.

What was achieved?

Documenting what Angola gained from its investments in infrastructure in the first 15 years after the end of the civil war is complicated by the difficulty of accessing detailed public spending data. Most of the necessary data are not publicly available, and in some cases the data probably do not even exist due to poor record-keeping and the practice of significant off-budget spending (e.g. through credit lines and investments through Sonangol). It is useful, nonetheless, to review such data as are available for different sectors in order to piece together a partial picture of what has been achieved. The data provide a sense of the limited value for money that most investments in Angolan infrastructure have delivered, as well as illustrating the need for more transparency. For the purposes of this paper, the analysis of public spending focuses on the energy and road sectors, as these have been given high priority by the government.

Government prioritization and planning

Periodic two-year government plans, beginning in 2003–04 and repeated until 2008, outlined a substantial commitment to investments in numerous sectors, including transport, energy and water. These documents set benchmarks for project success or failure, which typically consisted of indicators such as sector investment levels, sector growth and numbers of jobs created.¹⁶

The National Development Plan (NDP) for 2013–17 has taken the commitment demonstrated in earlier government plans a level further: covering a five-year rather than two-year period, it is based on an analysis of socio-economic developments in 2007–12, an assessment of the international economic outlook, and a macroeconomic framework. It outlines medium- and long-term national

¹⁴ Pushak, N. and Foster, V. (2011), *Angola's Infrastructure: A Continental Perspective*, Washington, DC: World Bank, <http://documents.worldbank.org/curated/en/2011/03/15198830/angolas-infrastructure-continental-perspective> (accessed 9 Feb. 2018).

¹⁵ The study does not present the baseline data for these calculations, but it can be assumed that they are based on World Bank estimates for the years prior to 2011, as 7 per cent of GDP corresponded to US\$6 billion in 2010 and US\$7.9 billion in 2011 – which is what the government actually spent on public investments in those years.

¹⁶ Soreide et al. (unpublished), 'Towards "value for money" in Angolan construction projects'.

objectives, as well as 11 specific policy areas on which successful implementation depends. Relatively detailed objectives and indicators are set out on a sector-by-sector basis. The NDP includes 20 transformative projects (*projectos estruturantes*) with designated national priority status, costed at US\$50.7 billion in total. In addition, three clusters of projects are earmarked for private investments valued at US\$10.1 billion. The cost estimates are highly aggregated, however, which makes it difficult to assess if they are realistic. The NDP also outlines a medium-term development expenditure framework and a financing strategy, although neither is sufficiently detailed.

Despite the NDP's relatively extensive scope and attempt at prioritizing activities, it has no explicit connection to the PIP, which is the key policy instrument to inform the government's annual budgeting process and determine the level of government spending on public investments. The NDP has proven to have overambitious targets relative both to the capacity of the public administration to implement and oversee plans, and to the capacity of the private sector to deliver. Since 2015, financing has also become an issue as the economic and fiscal crisis has greatly reduced revenues that could be used for financing public investments.

The government still does not publish information about completed infrastructure projects, their final costs, or the extent to which they deliver the benefits expected of them.

Although the detail and quality of data on infrastructure investments have improved in the past few years, more needs to be done. The government still does not publish information about completed infrastructure projects, their final costs, or the extent to which they deliver the benefits expected of them. Annual budget execution reports, published from 2010 onwards, disclose the level of actual expenditure versus the budgeted figure in each year. The reports indicate that the level of actual spending achieved has varied from 30 per cent of that budgeted in 2009 to 97 per cent in 2011 and 2012, and back down to 48 per cent in 2014 – the reduced 2014 figure reflected the fact that the PIP was the first programme to be halted as revenue dropped. Figures on the overall amount of money spent do not, however, reveal anything about the number of infrastructure projects completed or their final costs. Although quarterly implementation reports document progress against objectives in the NDP, these are produced exclusively for the government. They are not even shared with parliament, which is consequently unable to perform its duty of holding the executive to account. However, the 2013–17 NDP does provide some indications of achievements up to 2012, as well as the level of ambition for the next five years.

The energy sector

The energy sector in Angola is underdeveloped, with only 30 per cent of the population having access to electricity in 2015.¹⁷ There is huge potential for hydropower, solar power and natural gas-based generation, and expanding production has been one of the biggest priorities of the government over the past decade. Generation capacity and production have both increased massively, thanks to investment valued in the tens of billions of US dollars – although capacity and production have still fallen short of the targets in the NDP. Generation capacity rose from around 830 MW in 2002 to 2,230 MW in 2014, slightly

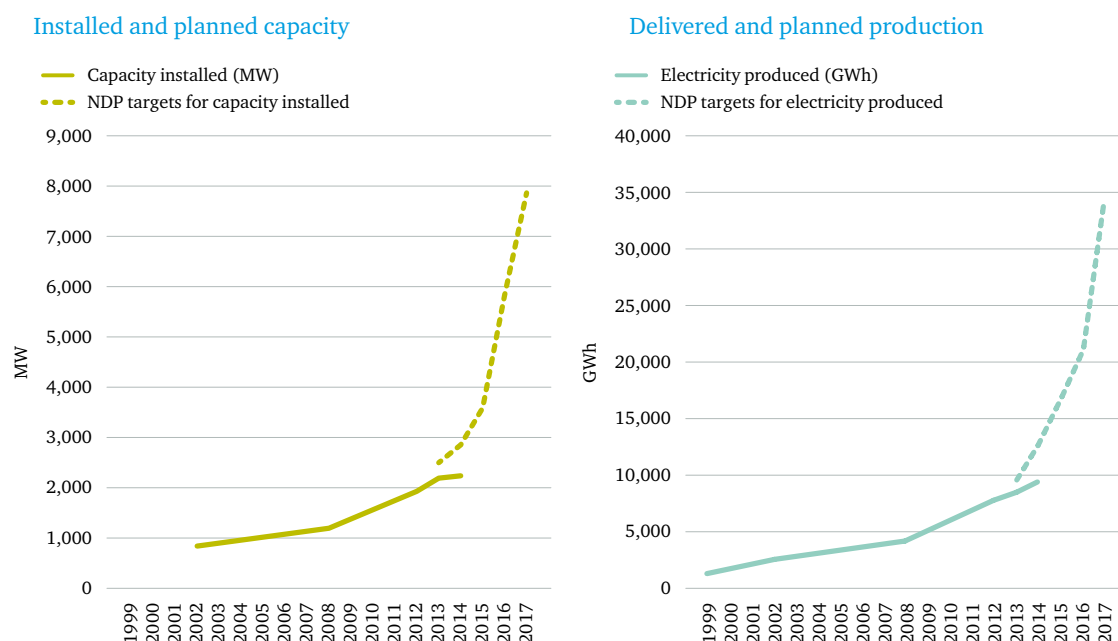
¹⁷ Republic of Angola, Ministry of Energy and Water and United Nations Development Programme (2015), *Rapid Assessment and Gap Analysis | Angola*, September 2015, Luanda: Republic of Angola, Ministry of Energy and Water, http://www.ao.undp.org/content/angola/en/home/library/environment_energy/publication_3/rapid-rapid-assessment-and-gap-analysis---angola-.html (accessed 9 Feb. 2018).

lower than the levels in Mozambique (2,682 MW) and Zambia (2,452 MW). However, installed capacity in all three countries is dwarfed by that in South Africa (46,963 MW).¹⁸ A high proportion of Angola's generation capacity is operational, and the country produced an estimated 4,133 GWh of electricity in 2008, more than three times as much as in 1999 when around 1,295 GWh was generated.¹⁹ By 2014, annual production had reached 9,480 GWh.

The authorities have ambitious plans to build on this initial success with further increases in capacity and production. The target set out in the 2013–17 NDP was for generation capacity to increase fourfold, from 1,917 MW in 2012 to 7,879 MW in 2017, mainly through a handful of very large projects. The target for energy production for the same period was comparable, with production earmarked to rise from 7,710 GWh in 2012 to 34,346 GWh in 2017. As illustrated in Figure 2, however, these targets seem highly ambitious in light of historical trends. In the first two years of implementation of the 2013–17 NDP, a significant gap emerged between annual targets and actual increases in production. That being said, a number of large projects were completed in 2017. This has boosted generation capacity, adding approximately 3,500 MW to existing capacity – 60 per cent of the planned increase – at a cost of more than US\$7 billion.²⁰ The shortfall relative to the target has been caused principally by the delay of a mega-dam, the 2,170-MW Caculo Cabaca hydropower project.

The significant expansion in generation capacity and production up to 2012 was not matched by improvements in distribution, however. Angola has continued to face difficulties with energy transmission, and its power infrastructure suffers from major efficiency losses. In 2007, there were

Figure 2: Angola's energy sector ambitions



Sources: Pushak and Foster (2011), *Angola's Infrastructure: A Continental Perspective*; and República de Angola (2012), National Development Plan.

¹⁸ UN Data (undated), <http://data.un.org/Data.aspx?q=electricity&d=EDATA&f=cmID%3aEL>.

¹⁹ Pushak and Foster (2011), *Angola's Infrastructure: A Continental Perspective*, p. 10.

²⁰ The main projects to come online in 2017 were the Laúca Dam (2,070 MW, US\$4.3 billion), Cambambe 2 (960 MW, US\$2 billion) and the Soyo CCGT (750 MW, US\$900 million).

reportedly between eight and 16 outages per month, with larger firms hit by more outages than other users. By 2010 the situation had improved to six outages per month, each lasting around 14 hours. Overall, the AICD study shows, Angola lost 36 days to power outages in 2010, twice as much as in other resource-rich African countries.²¹

The NDP sets quantitative indicators for energy distribution, with projected growth identical to that for production, and distribution equivalent to 85 per cent of planned production (see Table 1). However, these figures do not reflect the *quality* of distribution (i.e. there could still be frequent outages), and it is questionable whether the projections are realistic given past problems with transmission. A key obstacle to progress is that transmission in Angola relies on three main systems – in the north, central and southern parts of the country, respectively – that are independent and have yet to be interconnected.

Table 1: Power figures for selected years (2014–17 are NDP targets)

	1999/2002	2008	2012	2014	2015	2017
Capacity installed (MW)	830**	1,200	1,917	2,861	3,561	7,879
Electricity produced (GWh)	1,295*	4,133	7,710	12,618	17,018	34,346
Energy distributed (GWh)	–	–	6,554	10,725	14,465	29,194

Sources: Pushak and Foster (2011), *Angola's Infrastructure: A Continental Perspective*; and República de Angola (2012), *National Development Plan*.
* 1999 data. ** 2002 data.

A rough indicator of the current state of affairs in the energy sector is provided by the World Bank's indicators for 'getting electricity' in its Doing Business rankings. On this measure, Angola ranked 166th out of 189 countries in 2016, with a score of 0 out of 8 on the 'reliability of supply and transparency of tariffs index'.²² This compares to an average of 0.9 for sub-Saharan Africa as of 2017.²³ The lack of reliable supply in Angola has led to widespread use of self-generation capacity by both households and firms (for the latter, such capacity was estimated at 900 MW in the 2011 AICD study). Self-generation is associated with much higher costs than necessary. Perhaps the gravest finding of the AICD study was the extent of efficiency losses in the energy sector, which is estimated to have 'haemorrhaged' US\$618 million – equivalent to 0.9 per cent of GDP – in 2009 alone. This was due mainly to under-pricing, distribution losses and low collection ratios. Hidden costs were equivalent to approximately 400 per cent of sector revenue, four to eight times higher than in countries like Zimbabwe, Botswana, Zambia and Mozambique. That said, the efficiency gap cited in the AICD study differs qualitatively from challenges specifically related to infrastructure development.

Investment in hydroelectric dams holds the potential to lower power costs in the medium term. However, it is too early to assess whether the significant capital expenditure involved will offer value for money. Increasing production is pointless unless the transmission system is also greatly improved. The logical implication is that the next NDP (2018–22) needs to prioritize development of the transmission system, include strong indicators, and be subject to mandatory public progress reports as well as a medium-term review.

²¹ Pushak and Foster (2011), *Angola's Infrastructure: A Continental Perspective*, p. 11.

²² World Bank (2016), *Doing Business 2016*, p. 184, <http://www.doingbusiness.org/reports/global-reports/doing-business-2016>.

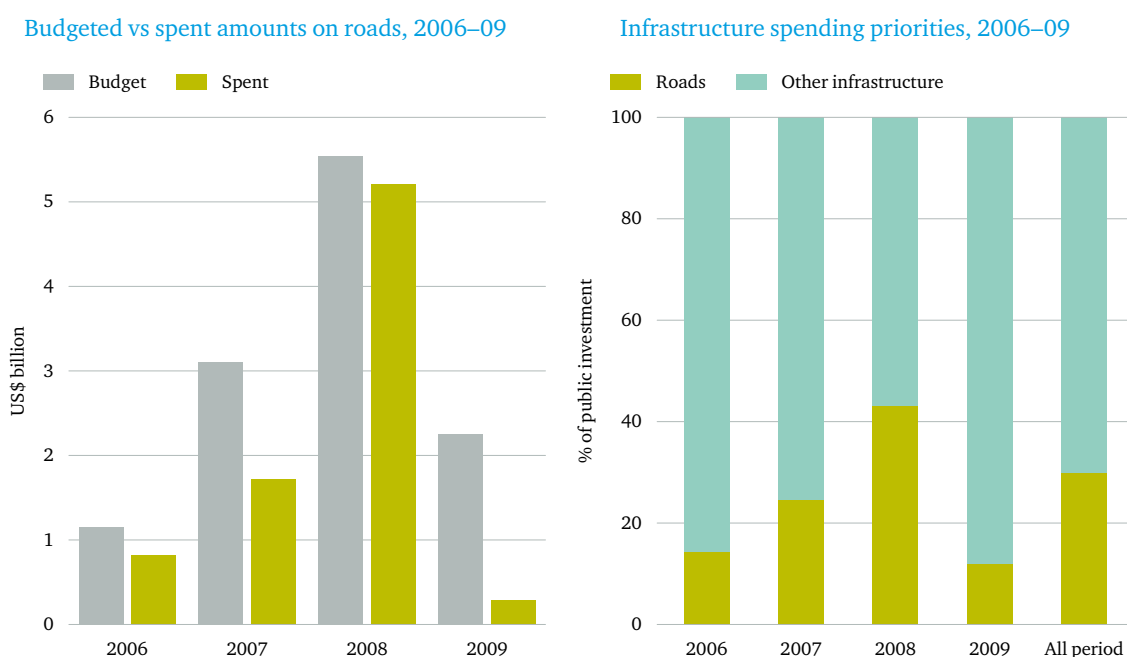
²³ World Bank (2017), 'Getting Electricity', Doing Business data, <http://www.doingbusiness.org/data/exploretopics/getting-electricity> (accessed 28 Jun. 2018).

Roads

According to the AICD study, roads have been the principal priority of the Angolan government's reconstruction plans. The study found that public spending on roads had been '... averaging a staggering \$2.8 billion over the period 2005–09'.²⁴ Data derived from the government's integrated financial management information system (SIGFE) show that *actual* expenditure on road infrastructure averaged US\$2 billion per year between 2006 and 2009, while the *budgeted* annual average for this period was US\$3 billion, indicating a budget execution rate of 67 per cent. There were significant year-on-year increases in amounts budgeted and spent until 2008. In 2009, many infrastructure projects were halted as a consequence of the global financial crisis (see Figure 3). While underspending in 2006 and 2007 reflected insufficient capacity in the system, in 2009 it reflected stricter budget rules. However, this does not change the finding that roads were given rapidly increasing priority from 2006 to 2008, with 44 per cent of all public investment being spent on roads in 2008 (see Figure 3). Over the whole 2006–09 period, the amount budgeted for roads accounted for 31 per cent of all public investments and 37 per cent of actual expenditure. These numbers reflected both the very poor state of roads in Angola after the civil war, and the determination within the administration to reopen the country to vehicular circulation. The government's second-highest priority was energy, which accounted for 8 per cent of the total allocation for public investments, followed by communications (6 per cent), education (5 per cent), rail (4 per cent), water (4 per cent) and housing (3 per cent).

Credible and comparable figures on the state of Angola's road network are scarce, and tend to be described and categorized differently by different sources. The Institute of Angolan Roads (INEA), the government body responsible for the sector, has no functional website. Some useful data can be found

Figure 3: Angola's road network ambitions



Source: Author's calculations based on unpublished primary budget and expenditure data from the government's integrated financial management information system (SIGFE).

²⁴ Pushak and Foster (2011), *Angola's Infrastructure: A Continental Perspective*, p. 18.

at the website of the Ministry of Construction, which oversees INEA, but it is still difficult to get the full picture. Data from the AICD study and other sources are used here to piece together as coherent a picture as possible of the state of the Angolan road network.

At the time of the AICD study, the country had 62,560 km of roads, of which the classified network of primary, secondary and tertiary roads covered 36,399 km. This was complemented by an urban road network of 11,057 km. Unclassified roads made up the remaining 15,104 km. The road network density recorded in the study, measured in kilometres of road per 1,000 sq km, was less than a third of that in low-income, non-fragile African countries. Only 58 per cent of primary and secondary roads and 40 per cent of tertiary roads were estimated to be in good or fair condition – again, proportions substantially below those in other African countries.²⁵

Transport and logistics was one of the four priority clusters in the 2013–17 NDP, which envisaged investment in road infrastructure as a means of improving national cohesion. Investment was also seen as a way to interlink the country's provinces, main cities and distribution infrastructure as part of a broader vision for the establishment of national development corridors, as outlined in the government's longer-term Vision 2025 plan. Each cluster in the NDP included a subset of projects, with more than a third of all projects and 41 per cent of estimated spending assigned to transport and logistics (see Table 2); more than half of the transport and logistics projects were in the road sector.²⁶

Table 2: Priorities in the 2013–17 NDP

2013–17 NDP clusters	Number of projects	Estimated spending, Kz bn
Energy and water	65	1,384
Food and agro-industry	57	270
Housing	35	602
Transport and logistics	123	2,343
Non-priority clusters	51	1,081
Total	331	5,680

Source: Republic of Angola, Ministry of Planning and Territorial Development (2012), *Plano Nacional de Desenvolvimento 2013–17*.

Despite the priority given to roads in infrastructure planning, data from the Ministry of Construction indicate that the actual expansion of the road network between 2001 and 2013 was limited.²⁷ According to this source, only 1,200 km of paved roads were added to the network in this period, relative to the 2001 baseline. The analytical challenge here is that the source does not mention the condition of the roads in question. A high percentage of the roads nominally classified as paved in 2001 were most likely in a state of degradation that, in practical terms, would have required their complete rehabilitation. In a different presentation, the Ministry of Construction said that 6,403 km of primary roads had been rehabilitated by 2010, and that a further 5,837 km were rehabilitated between 2011 and 2014, bringing the total extension of the paved road network to 12,240 km by end-2014. From 2012, the ministry started registering kilometres of rehabilitated secondary and tertiary roads as well, most likely because these types of roads were identified as priorities in the 2013–17 NDP.²⁸

²⁵ Pushak and Foster (2011), *Angola's Infrastructure: A Continental Perspective*, p. 20.

²⁶ Republic of Angola, Ministry of Planning and Territorial Development (2012), *Plano Nacional de Desenvolvimento 2013–2017*, pp. 192–93, <http://www.cidadao.gov.ao/VerPublicacao.aspx?id=1264> (accessed 9 Feb. 2018).

²⁷ Republic of Angola, Ministry of Construction (2013), 'SIGMINCONS', presentation, 30 September 2013, slide 17, <http://www.gigsigmincons.com/apresenta-es> (accessed 9 Feb. 2018).

²⁸ Republic of Angola, Ministry of Construction (2014), 'Balanço de Actividades do Ministério em 2014 no âmbito do PND 2013–2017,

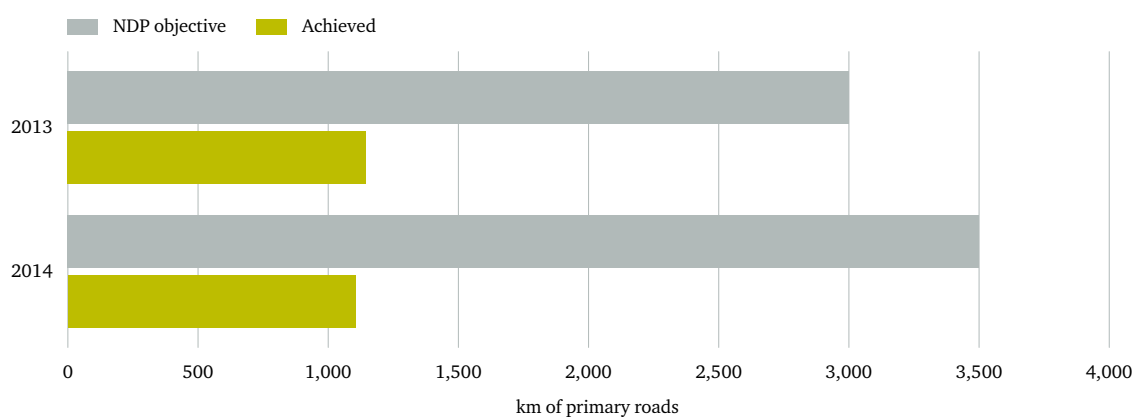
2^o Conselho Consultivo do MINCONS, 27 e 28 de Novembro de 2014', <http://www.gigsigmincons.com/apresenta-es> (accessed 9 Feb. 2018).

Table 3: Kilometres of road constructed and NDP targets

	Until 2010	2011	2012	2013	2014	Total
Primary	6,403	986	2,581	1,156	1,114	12,240
NDP targets				3,000	3,500	
Secondary	–	–	412	593	646	1,651
NDP targets				1,000	1,500	
Tertiary	–	–	539	776	703	2,018
NDP targets				15,000	15,000	
Bridges	286	8	5	7	32	338

Sources: Republic of Angola, Ministry of Construction (2013), 'SIGMINCONS', presentation, 30 September 2013; and Republic of Angola, Ministry of Construction (2014), 'Balanço de Actividades do Ministério em 2014 no âmbito do PND 2013–2017'.

The 2013–17 NDP set ambitious quantitative targets for road 'construction and recuperation', with works on 15,500 km of primary roads, 6,000 km of secondary roads and 65,000 km of tertiary roads planned for the five-year period.²⁹ Clearly, the onset of the economic crisis linked to the fall in oil prices from the second half of 2014 affected the government's ability to meet these objectives. However, the plan was already significantly behind schedule even in the early part of the NDP planning period, when funding was not yet an issue. Only about a third of the works planned for primary roads in 2013 and 2014 (2,270 km out of 6,500 km) were completed (see Figure 4). For secondary roads, about 50 per cent (1,239 km) of the target (2,500 km) was met during 2013 and 2014, while for tertiary roads the figure was around 5 per cent (1,479 km out of 30,000 km).³⁰

Figure 4: Planned vs completed kilometres of primary roads, 2013–14


Sources: Republic of Angola, Ministry of Construction (2013), 'SIGMINCONS', presentation, 30 September 2013; and Republic of Angola, Ministry of Construction (2014), 'Balanço de Actividades do Ministério em 2014 no âmbito do PND 2013–2017'.

As illustrated by the shortfall in meeting targets for road construction in 2013 and 2014, it seems clear that the NDP had overambitious targets, as falling oil prices reduced the amount of funding available only from 2015 onwards. Prior to and in the first half of the 2013–17 NDP period, budgets had fluctuated significantly – with massive increases between 2006 and 2008, a sharp drop in 2009, and then steady increases again between 2010 and 2014. Figures for 2006–08 suggest that absorptive

²⁹ Republic of Angola, Ministry of Planning and Territorial Development (2012), *Plano Nacional de Desenvolvimento 2013–2017*, p. 105.

³⁰ Republic of Angola, Ministry of Construction (2014), 'Balanço das Actividades do Ministério em 2014 no âmbito do PND 2013–2017', presentation, 30 December 2013, slide 20, <http://www.gigsigmincons.com/apresenta-es> (accessed 9 Feb. 2018).

capacity increased almost at the same pace as budget increases, a development explained by the involvement of both domestic and foreign enterprises (including Chinese firms, financed through the credit lines agreed with the Chinese government).

The most likely explanation for the relatively low rates of road construction, relative to targets, is therefore a combination of unrealistic planning in terms of the actual kilometres of road that could be delivered within a certain time frame, and a challenging operating environment for road construction (e.g. difficult projects, a lack of skilled labour, bottlenecks in supply chains). This suggests that the shortcomings in the 2013–17 NDP need to be thoroughly evaluated and the conclusions used to inform future planning and budgeting. Efficiency issues have been a major factor in the government's inability to deliver on planned targets, as acknowledged in 2016 by the former minister of finance, Armando Manuel.³¹

Quantitative targets aside, there are no recent assessments of the *quality* of new roads other than in the 2011 AICD study. It is unfortunate that institutions such as the World Bank and African Development Bank (AfDB) have not used the baseline provided by the AICD study to keep data and analysis up to date. Currently the only source of information is anecdotal evidence from fieldwork in Luanda, which indicates that the quality of the rehabilitated road network is generally low, due to poor construction and inadequate maintenance, and that Angola has missed an opportunity to deliver a key requirement for inclusive economic growth.

In October 2015, the government set up a new Road Fund to improve efficiency in the conservation and maintenance of the road network. This institutional change was a key recommendation of the AICD study, but it remains to be seen whether it will be effective.

In October 2015, the government set up a new Road Fund to improve efficiency in the conservation and maintenance of the road network. This institutional change was a key recommendation of the AICD study, but it remains to be seen whether it will be effective. Given that the Road Fund was created after the onset of the economic crisis, it possibly reflects belated recognition of the need to preserve funding for maintenance of the rehabilitated network, as well as a shift in priority away from new projects.

Value for money

Data on the cost of road projects in Angola are scarce. Institutions such as the World Bank and AfDB have attempted to estimate the cost of roadworks per kilometre, but this has proven difficult. Projects vary greatly, and descriptions and data often have few details beyond the different types of roads involved. Differences in design standards such as lane widths, terrain, traffic, overlay thickness, regravelling thickness, rehabilitation surface and improvement type are often not accounted for. Hence, there are very wide ranges in estimated average costs. The AfDB concludes that no such thing as a 'typical' unit cost can be established. Despite these caveats, both institutions have presented broad figures on the cost of roadworks per lane kilometre (in 2006 US dollars).³² For simplicity and ease of comparison, only the highest unit costs by quartile identified by the two institutions are shown in Table 4.

³¹ Address at Chatham House conference entitled 'Governing for Infrastructure Delivery in Sub-Saharan Africa: Overcoming Challenges to Create Enabling Environments', 14 March 2016.

³² African Development Bank (2014), *Study on Road Infrastructure Costs: Analysis of Unit Costs and Cost Overruns of Road Infrastructure Projects in Africa*, AfDB Market Study Series, May 2014, https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Study_on_Road_Infrastructure_Costs_-_Analysis_of_Unit_Costs_and_Cost_Overruns_of_Road_Infrastructure_Projects_in_Africa.pdf. Lane kilometre estimates imply that a two-lane road would cost twice as much as a single-lane road, etc. The typical lane width is 3.5 metres, but there are variations.

Table 4: AfDB and World Bank estimates of highest unit cost per road lane km, 2006 US\$

Institution/year	Unit	US\$/lane km		
		Lower quartile	Median	Upper quartile
World Bank (2008)	Construction (paved) <50 km	349,523	401,646	613,929
	Rehabilitation (paved) <50 km	220,186	352,613	505,323
AfDB (2014)	Construction/upgrading of paved road projects <100 lane km	166,300	227,800	425,400
	Paved road rehabilitation projects <100 lane km	109,800	180,300	290,000

Sources: Africon (2008), *Africa Infrastructure Country Diagnostic: Unit Costs of Infrastructure Projects in Sub-Saharan Africa*, Abidjan: AfDB; and AfDB (2014), *Study on Road Infrastructure Costs: Analysis of Unit Costs and Cost Overruns of Road Infrastructure Projects in Africa*.

It has not been possible, given the scope of this research paper, to source figures directly comparable to the ones presented by the AfDB and World Bank. The author was able to obtain estimates only of total spending on road infrastructure between 2006 and 2009, and of kilometres of road constructed and repaired until 2010. These two variables can be used to estimate, very roughly, how much the government spent per kilometre of road. Given the post-war acceleration in spending on infrastructure, and on the roads sector in particular, and given the massive reduction in spending in 2009 and 2010, it is reasonable to assume that two-thirds of new roads (4,290 km) were constructed between 2006 and 2008. Another assumption made as part of this exercise is that 75 per cent of the roads constructed were two-lane roads, and that 25 per cent were four-lane roads. Official data indicate that, in these three years, the government spent US\$7.3 billion (in constant 2006 US dollars) on road projects.³³ Based on these assumptions, the amount spent per lane kilometre of road works out at US\$682,762.

A 2015 World Bank paper found evidence that the unit costs of road construction and maintenance are higher in countries with higher levels of corruption.

It should be emphasized that this is a rough, albeit relatively conservative, estimate. Great care should be exercised when making comparisons based on this figure. That being said, it is noteworthy that the amount exceeds the highest estimates of both the World Bank and AfDB, as shown in Table 4 (and could potentially have been even higher than calculated here). A 2015 World Bank paper – drawing on the World Bank’s Worldwide Governance Indicators (WGI) and Transparency International’s 2008 Corruption Perceptions Index – found evidence that the unit costs of road construction and maintenance are higher in countries with higher levels of corruption.³⁴ This finding seems to substantiate the notion of unit costs being higher in Angola than on the rest of the continent as Angola has historically suffered from high levels of corruption. While it is encouraging that the 2015 World Bank paper finds a strong correlation between reduced corruption and lower unit costs, there are no signs that the high corruption levels in Angola have been tackled over the past decade. Indeed, in 2016 the country still ranked extremely poorly in the Corruption Perceptions Index and for ‘control of corruption’ in the WGI.³⁵

³³ The standardization is done by dividing the time series of exchange rates against the US dollar with the official exchange rate to the US dollar in 2006 (Kz 80.5:US\$1).

³⁴ Collier, P., Kirchberger, M. and Söderbom, M. (2015), *The Cost of Road Infrastructure in Low and Middle Income Countries*, Washington, DC: World Bank, Policy Research Working Paper 7408, p. 18, <http://documents.worldbank.org/curated/en/124841468185354669/pdf/WPS7408.pdf> (accessed 9 Feb. 2018).

³⁵ World Bank (2017), *Worldwide Governance Indicators*, <http://info.worldbank.org/governance/wgi/index.aspx#home> (accessed 21 Feb. 2018); and Transparency International (2017), *Corruption Perceptions Index 2016*, Berlin: Transparency International, https://www.transparency.org/whatwedo/publication/corruption_perceptions_index_2016 (accessed 26 Feb. 2018).

All this suggests a need for the government to undertake an in-depth review of the costs of road construction based on more detailed data, for example covering the approximately 60 road projects that were included in the transport and logistics cluster of the 2013–17 NDP. Reasons for levels of spending, and for variations in those levels, would need to be analysed, and ways of reducing costs and increasing value for money identified (with an explicit focus on anti-corruption measures). The data and analysis would also need to be disclosed to the public to allow for scrutiny outside government, in order to promote increased accountability and efficiency in the delivery of public infrastructure.

3. The Importance of Infrastructure Governance

Getting value for money from infrastructure investment, and using such investment to stimulate inclusive economic growth, is challenging even for advanced economies. The extent to which this is feasible is closely related to the quality of governance and institutions in the country concerned, which is key to determining which projects are selected and how they are delivered.³⁶ As noted by the OECD in 2015, 'Poor governance is the major reason why infrastructure projects fail to meet their timeframe, budget and service delivery objectives.'³⁷ This was reiterated in a more recent OECD publication outlining 10 key governance challenges and policy options for getting infrastructure governance right.³⁸ Hart, Krause and Miller link the quality of infrastructure investment and delivery to the quality of government. They assert that public investment management reforms represent a first step in developing sector-specific reforms geared towards infrastructure outcomes.³⁹

In a 2014 report, the World Bank defined the eight 'must have' steps in an efficient public investment system. These were: (1) investment guidance, project development and preliminary screening; (2) formal project appraisal; (3) independent review and appraisal; (4) project selection and budgeting; (5) project implementation; (6) project adjustment; (7) facility operation; and (8) basic completion review and evaluation. Angola featured in one of 36 country case studies in the report, and was in the sub-group classified as natural resource-dependent states.⁴⁰

In 2015, the IMF followed up on this work with a paper providing guidelines for public investment efficiency, defined as '... the relationship between the value of the public capital stock and the measured coverage and quality of infrastructure assets'.⁴¹ Using a new Public Investment Efficiency Indicator (PIE-X) that estimates the relationship between the public capital stock and indicators of access to and quality of infrastructure assets, the paper assigns countries scores of between 0 and 1 in accordance with their distance from an 'efficiency frontier' of best-performing countries. The paper estimates average efficiency losses for public investments across more than 100 countries at 27 per cent (measured as the distance between the average country and the frontier for a given level of public capital stock and income per capita). Low-income developing countries (LIDCs) have a larger efficiency gap of 40 per cent.⁴² Within the sub-groups of the study, there are variations on these averages: countries with weak institutions

³⁶ Hart, T., Krause, P. and Miller, M. (2015), *Bricks and dollars: Improving public investment in infrastructure*, London: Overseas Development Institute, <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10117.pdf> (accessed 9 Feb. 2018); Rajaram, A., Le, T. M., Kaiser, K., Kim, J.-H. and Frank, J. (eds) (2014), *The Power of Public Investment Management: Transforming Resources into Assets for Growth*, Washington, DC: World Bank, <http://documents.worldbank.org/curated/en/461121468164052711/pdf/911580PUB0Box301610EPI02103160Sep30.pdf> (accessed 9 Feb. 2018); OECD (2015), *Towards a Framework for the Governance of Infrastructure*, Paris: OECD, <https://www.oecd.org/gov/budgeting/Towards-a-Framework-for-the-Governance-of-Infrastructure.pdf> (accessed 9 Feb. 2018); IMF (2015), *Angola: Selected Issues*, Country Report No. 15/3023, Washington, DC: IMF, <https://www.imf.org/external/pubs/ft/scr/2015/cr15302.pdf> (accessed 9 Feb. 2018).

³⁷ OECD (2015), *Towards a Framework for the Governance of Infrastructure*, p. 1.

³⁸ OECD (2017), *Getting Infrastructure Right: A Framework for Better Governance*, Paris: OECD, <http://www.oecd.org/publications/getting-infrastructure-right-9789264272453-en.htm> (accessed 9 Feb. 2018).

³⁹ Hart, Krause and Miller (2015), *Bricks and dollars*, p. 19.

⁴⁰ Rajaram et al. (2014), *The Power of Public Investment Management*.

⁴¹ IMF (2015), *Making Public Investment More Efficient*, Staff Report, Washington, DC: IMF, p. 7, <https://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Making-Public-Investment-More-Efficient-PP4959>.

⁴² The efficiency gap is measured as '... the distance from an efficiency frontier, which is defined by the countries with the highest coverage and quality of infrastructure (output) for a given level of public capital stock (input)'. Ibid.

and high perceived levels of rent-seeking and corruption have correspondingly wider efficiency gaps. The IMF argues that strengthening the institutional framework for public investments would significantly improve their efficiency, and has highlighted 15 areas or 'institutions' that it considers key to progress. These form a Public Investment Management Assessment (PIMA) framework and are grouped under three headings: 'planning', 'allocating' and 'implementing' (see Box 1).

Institutional contexts vary from country to country, and therefore so do the areas in which institutional improvements could yield the biggest efficiency gains. Generally speaking, the IMF paper finds that institutions related to the funding, management and monitoring of project implementation are weakest in LIDCs, and that priority should therefore be given to strengthening these areas.⁴³

Box 1: The IMF's PIMA framework

Planning

1. Fiscal rules
2. National and sectoral planning
3. Centre–local coordination
4. Management of public–private partnerships (PPPs)
5. Company regulation

Allocating

6. Multi-year budgeting
7. Budget comprehensiveness
8. Budget unity
9. Project appraisal
10. Project selection

Implementing

11. Protection of investment
12. Availability of funding
13. Transparency of execution
14. Project management
15. Monitoring of assets

Public investment management in Angola

According to a former senior government representative, the Angolan authorities have been overambitious in their infrastructure planning, not taking into consideration issues such as feasibility, absorption capacity or corruption risks.⁴⁴ This flawed approach has been sustained by high commodity prices and exacerbated by weak institutions. To understand why the country's significant investments in infrastructure over the past 15 years have offered limited value for money, it is necessary to scrutinize the institutions involved in infrastructure governance throughout the planning, resource allocation and implementation phases. The PIMA framework provides a useful analytical tool for doing so, notwithstanding the relatively general level of analysis possible within the scope of this paper.⁴⁵

⁴³ Ibid., p. 23.

⁴⁴ Interview, Luanda, February 2016.

⁴⁵ The analysis in this paper does not represent an attempt to replicate a full Public Investment Management Assessment (PIMA) or apply its methodology, which the IMF has done for a number of countries. That exercise is far beyond the scope of this paper. Here the PIMA is used as a way to frame analysis of the country's infrastructure and public investment governance.

Planning

Box 1 lists the 15 institutions in the PIMA framework, starting with the five deemed important for planning.

The first requirement is the existence of fiscal rules: regulations that bind a country's authorities to managing its resources in accordance with specified criteria, typically defined through the country's budgetary framework. The fiscal rules most relevant to the Angolan context concern the management and use of resource revenue, framed so as to mitigate the highly pro-cyclical nature of public investments in the country. The government started addressing the regulatory framework for resource revenue management only in 2011. An oil price differentials account (*Fundo do Diferencial do Preço do Petróleo*), a reserve for infrastructure investments (*Reserva Estratégica Financeira Petrolífera para Infraestruturas*) and an investment fund (*Fundo Soberano de Angola*) were established at this time. The three mechanisms were kept separate, with the differentials account and reserve set up as sub-accounts within the central bank and the investment fund formed as a sovereign wealth fund (SWF). Institutions are only as strong as the political will to use them effectively, however, and the two most important mechanisms in terms of oil revenue stabilization – the differentials account and the infrastructure reserve – were set up too late, with inadequate savings targets that were poorly enforced. Just before the onset of the economic and fiscal crisis in July 2014, only US\$480 million had been accumulated in the differentials account, while the infrastructure reserve contained US\$1.8 billion; the SWF, meanwhile, relied on an initial endowment of US\$5 billion.⁴⁶ By comparison, overall national budgeted expenditure in 2014 amounted to US\$54.7 billion, with 73 per cent of budgeted revenue deriving from oil. The effectiveness of the differentials account relative to a budget of this size would be extremely limited.

Institutions are only as strong as the political will to use them effectively, however, and the two most important mechanisms in terms of oil revenue stabilization – the differentials account and the infrastructure reserve – were set up too late, with inadequate savings targets that were poorly enforced.

Had regulations on public investment been put in place in 2005, with a conservative oil price incorporated in budget assumptions and windfall oil revenues saved to a stabilization fund, the disruption caused by the 2008–10 crisis – when public investment dropped to 4 per cent of GDP (see Figure 1) – could have been prevented or mitigated. Such measures would also have improved the government's ability to tackle the crisis caused by the drop in oil prices in the second half of 2014.⁴⁷ The IMF, moreover, had already recommended the establishment of an SWF/oil fund as part of its negotiations for its 2010 Stand-By Arrangement with Angola, but has claimed that '... the authorities were unconvinced of the case for anchoring fiscal policy around a rule that smoothed inter-temporal consumption from oil wealth'.⁴⁸ In a 2012 Article IV and post-programme monitoring report, the IMF warned against a 'spend as you go' approach versus a stabilization fund model. The IMF's calculations showed that if Angola

⁴⁶ World Bank (2015), *First Fiscal Management Development Policy Financing*, Washington, DC: World Bank, p. 22, <http://documents.worldbank.org/curated/en/913501468187795700/pdf/93732-PGD-REVISED-P153243-P155323-R2015-0112-2-Box391488B-OUO-9.pdf> (accessed 9 Feb. 2018).

⁴⁷ A 2011 paper reported that 'if spare revenue above the US\$50 benchmark had been saved between 2005 and 2010, Angola would have accumulated as much as US\$19 billion by 2010'. Jensen, S. K. and Paulo, F. (2011), *Reforms of the Angolan Budget Process and Public Financial Management: Was the Crisis a Wakeup Call?*, Bergen: Chr. Michelsen Institute, p. 65, <http://www.cmi.no/publications/4259-reforms-of-the-angolan-budget-process-and-public> (accessed 9 Feb. 2018). It is not unlikely that a similar amount could have been saved between 2011 and 2014, in which case the economy would not have been as negatively influenced by the 2008–10 crisis.

⁴⁸ IMF (2011), *Angola: Fourth Review Under the Stand-By Arrangement, Request for Waivers of Nonobservance of Performance Criteria, Request for Waivers of Applicability of Performance Criteria, and Request for Modification of Performance Criteria*, Washington, DC: IMF, p. 7, <http://www.imf.org/external/pubs/cat/longres.aspx?sk=24647.0> (accessed 9 Feb. 2018).

were to face an external shock of the magnitude of the 2008–10 global financial crisis, public investment would drop dramatically, from around 10 per cent of GDP to 5 per cent of GDP. As it transpired, this was very close to what actually happened, although the drop may prove to have been even steeper when figures on actual spending for 2015 and 2016 become available. If a stabilization fund had been in place, the higher oil prices of 2010–14 could have been used to keep the level of public investment at around 10–12 per cent of GDP for a number of years, or at least to prevent public debt from increasing as rapidly.⁴⁹ Another factor is that a strong correlation exists between oil prices and prices of bitumen (asphalt), a key material in road construction.⁵⁰ Spreading spending counter-cyclically over a number of years could have allowed funds for road construction and repair to stretch further and offer increased value for money.

According to the IMF, LIDCs generally perform as well as emerging and advanced economies in terms of national and sectoral planning.⁵¹ Angola's planning history and the content of its most recent NDP support this finding, notwithstanding the aforementioned weaknesses in the country's planning framework and practices. As mentioned, a series of two-year government plans had been in place since 2003. In 2008 these were upgraded to five-year plans, setting out strategic priorities and policies for every sector. The problem is that the 2013–17 NDP was overambitious, unrealistically costed and poorly linked to annual public investment planning and budgeting. Nor did it entertain the possibility of the sort of external shocks to which an economy dependent on oil revenue is susceptible. Nonetheless, the government's commitment to planning and the experience policymakers have gained provide a good foundation on which to build, as a more challenging outlook for resource revenue forces the setting of targets that are more realistic and more capable of accommodating external shocks. The 2018–22 planning cycle represents an opportunity for Angola to put lessons learned into effect, and to establish more strategic and policy-driven national development plans.

Private capital and public–private partnerships (PPPs) have not yet featured to any significant extent in Angola's infrastructure investment landscape. Until recently, oil revenues and credit lines (i.e. sovereign debt) were considered to provide sufficient financing, so there was little perceived need or appetite for private-sector funding. This may now be changing.⁵² A law on PPPs was approved in January 2011 (Law No. 2/11 of 14 January) after being put on the agenda in the aftermath of the global financial crisis. The legal framework for the PPP law is inspired by the Portuguese experience, which, as in most other countries, has been mixed at best. It is by no means guaranteed that in the current context Angola will be able to use PPPs to attract private capital. The authorities are aware of these issues, but as the country's economic problems deepen, the desire to attract foreign investment in infrastructure delivery is increasing. However, given the current weaknesses in infrastructure governance and fiscal transparency, PPPs would carry significant risks of failure.⁵³ Institutional investors would want to see substantial improvements in governance before daring to invest in the country. Moreover, any PPPs established in the absence of such improvements would almost certainly increase government liabilities, as private investors would seek state guarantees to compensate for higher credit risks.

⁴⁹ IMF (2012), *Angola, 2012 Article IV Consultation and Post Program Monitoring*, Washington, DC: IMF, p. 40, <http://www.imf.org/external/pubs/ft/scr/2012/cr12215.pdf> (accessed 9 Feb. 2018).

⁵⁰ Africon (2008), *Africa Infrastructure Country Diagnostic: Unit Costs of Infrastructure Projects in Sub-Saharan Africa*, Abidjan: AfDB, p. 5, <http://www.eu-africa-infrastructure-tf.net/attachments/library/aicd-background-paper-11-unit-costs-summary-en.pdf> (accessed 9 Feb. 2018).

⁵¹ National and sectoral planning should be understood here in a broad sense as policies '... which ensure public investment decisions are based on clear and realistic priorities, cost estimates, and objectives for each sector'. The finding is based on a sample of 25 countries. IMF (2015), *Making Public Investment More Efficient*, p. 20.

⁵² Economist Intelligence Unit (2015), *Evaluating the environment for public–private partnerships in Africa: The 2015 Infrascope*, London: Economist Intelligence Unit, p. 23, <https://library.pppknowledgelab.org/documents/2399> (accessed 9 Feb. 2018).

⁵³ Brumby, J., Kaiser, K. and Kim, J.-H. (2013), 'Public Investment Management and Public-Private Partnerships', in Allen, R., Hemming, R. and Potter, B. (eds) (2013), *The International Handbook of Public Financial Management*, Basingstoke: Palgrave Macmillan, p. 580.

Resource allocation

This cluster of institutions under the IMF's PIMA framework (see Box 1) includes multi-year budgeting, budget comprehensiveness, budget unity, project appraisal and project selection – all features of public investment management that are vital for efficient infrastructure spending.

The government of Angola has only recently embarked on multi-year budgeting, with the IMF providing technical assistance in June 2014 and April 2015. Progress since then has been limited. While the 2016 budget included a section outlining a medium-term fiscal framework, this looked more like an analytical exercise than a framework with any practical implications. An overly abstract approach is often an issue when governments are not fully prepared or able to engage in genuine medium-term fiscal planning.⁵⁴ Had a fiscal rule mandating the accumulation of financial resources and the year-on-year smoothing of expenditure been put in place, the authorities would have been in a much better position to plan and finance infrastructure investments. An additional issue is that in the past the Ministry of Finance did not set overall expenditure ceilings for public investments; these ceilings could have guided planning exercises. Addressing these gaps will be paramount if the government is to make progress in fiscal consolidation in the post-2014 economic and fiscal context.

The PIP was historically the domain of the Ministry of Planning and Territorial Development.⁵⁵ For several decades this institutional set-up practically decoupled public investment planning from the national budget, limiting budget comprehensiveness. Although some improvements have been made in this area, for many years projects have been approved and financed with limited, if any, consideration of future operational and maintenance costs. The lack of coordination between plans and budgets was evident in a disjointed and incoherent approach to management, which resulted in the SIGFE and SIPIP – the two integrated systems for financial management and public investment management – being run in isolation from one another.⁵⁶ According to the IMF, a working group was formed in May 2015 to address this issue, with results expected in the near future.⁵⁷ Exacerbating the problem, much of the infrastructure investment that has been financed by external credit lines has occurred off-budget. Likewise, large quasi-fiscal expenditures, including on massive public infrastructure projects, have been the rule rather than the exception over the past 15 years – with Sonangol the main culprit. Although progress has been made in addressing some of these issues, a 2014 IMF report noted a deterioration in the unity and universality of the budget as a result of the omission from budget documents of details on infrastructure spending undertaken by Sonangol.⁵⁸

Project appraisal and selection are further areas in need of strengthening. Years of abundant revenue have resulted in '... a lack of demand for project appraisal and the politicization of public investment decision making'.⁵⁹ The need to address this issue was identified as a structural adjustment criterion in the IMF's 2010 Stand-By Arrangement for Angola.⁶⁰ Yet as of 2015, the issue remained on the agenda and was seen as a crucial weakness in the broader public investment management system, with the

⁵⁴ Republic of Angola, Ministry of Finance (2015), *Orçamento Geral Do Estado 2016, Relatório de Fundamentação*, pp. 50–52, <http://www.minfin.gov.ao/PortalMinfin/faces/materiasderealce/orcamentogeraldoestado/ogepassados> (accessed 9 Feb. 2018).

⁵⁵ The Ministry of Planning and Territorial Development is referred to here as the Ministry of Planning. The analysis mostly addresses infrastructure governance prior to the new administration of President Lourenço taking office in 2017. One of the first acts of the new president was to merge the Ministry of Planning and the Ministry of Economy, creating the Ministry of Economy and Planning.

⁵⁶ World Bank (2015), *First Fiscal Management Development Policy Financing*, p. 27.

⁵⁷ IMF (2015), *Angola: Selected Issues*, p. 11; and World Bank (2002), *Angola-Economic Management TA*, Washington, DC: World Bank, p. 3, <http://documents.worldbank.org/curated/en/318831468768543420/pdf/multi0page.pdf> (accessed 9 Feb. 2018).

⁵⁸ IMF (2014), *Angola, Second Post-Program Monitoring*, Washington, DC: IMF, p. 8, <http://www.imf.org/external/pubs/cat/longres.aspx?sk=41428.0> (accessed 9 Feb. 2018).

⁵⁹ Rajaram et al. (2014), *The Power of Public Investment Management*, p. 56.

⁶⁰ Jensen and Paulo (2011), *Reforms of the Angolan Budget Process and Public Financial Management*, pp. 56–57.

IMF finding that ‘... project appraisal capacity remains limited, complicating assessments of potential economic impact of prospective projects’.⁶¹ It is unclear if the identification of such problems is being followed up with policy advice and technical assistance from, for example, the IMF, AfDB or World Bank.

The regulatory framework for public investment is enshrined in Law No. 31/10, which sets out the sequencing of investments under the PIP in a logical and straightforward manner. The law requires economic and financial viability studies and environmental assessments to be carried out as part of project preparation (Article 14). It also establishes a methodology for the prioritization and selection of projects, based on criteria such as the severity of the problem the project aims to address, the urgency of the problem, and the probability of the situation worsening if the project is not implemented (Appendix IV).⁶² In practice, compliance with the legal framework has been weak. Budget units (mainly ministries and provincial governments) often submit project proposals with inadequate documentation. Approvals are often made without the required procedures being followed.⁶³

The country's decentralized procurement system placed the compliance burden on chronically understaffed procurement units within ministries and provincial governments.

Part of the explanation for this lies in the importance policymakers have typically attached to spending the *entire* public investment budget. In the economic boom years, this would have been impossible had procurement and budget execution rules been followed rigorously, as the system simply lacked sufficient capacity to process the amounts of money passing through it. Moreover, the country's decentralized procurement system placed the compliance burden on chronically understaffed procurement units within ministries and provincial governments. Projects were not subject to preliminary feasibility studies, as this was not an upfront requirement in the early stages of the planning process. Strengthening the use of such studies could reduce the number of projects making it through to the more rigorous, costly and demanding part of the process, which could then be saved for the most viable projects. With increased incentives for better project preparation, it becomes important that efforts are made to strengthen capacity, especially in the Studies, Planning and Statistics Departments (GEPE) of line ministries and provincial governments.⁶⁴

Implementation

Protection of investment, availability of funding, transparency of execution, project management and monitoring of assets are the five institutions grouped in the third cluster of the IMF's PIMA framework (Box 1). Again, these are all relevant to understanding the difficulties in achieving value for money from infrastructure investments in Angola.

As noted, although Angola faced a daunting reconstruction task at the end of the civil war, it was in the rare position of not lacking funding. Quite the opposite was the case, as oil revenue sharply increased the financial resources available to the government. This was in contrast to the challenges facing many LIDCs, which often struggle to protect scarce funds for complex, long-term infrastructure developments. For Angola, the problem instead was that an abundance of revenue probably fostered a lax attitude to

⁶¹ IMF (2015), *Angola: Selected Issues*, p. 11.

⁶² Government of Angola (2010), *Diário da República*, I série N.º 67, Decreto Presidencial n.º 31/10, de 12 de Abril de 2010.

⁶³ Interview, Luanda, February 2016.

⁶⁴ Gabinetes de Estudos, Planeamento e Estatística (GEPE).

public investment management. The excess of financial resources in the early post-war years due to oil revenue essentially resulted in compliance with the legal framework for public investment being suspended, as the main objective for policymakers at that time was to increase execution rates for rapidly growing budgets. The resultant culture within the Ministry of Finance was one of paying bills without asking too many questions.

In 2009, the after-effects of the global financial crisis started to change the picture. Oil prices dropped, reducing government revenue. The result was a dramatic decline in public investment spending (see Figure 1) and the accumulation of massive arrears in payments owed to construction companies. In response, Carlos Alberto Lopes, who took over as finance minister in February 2010, started enforcing budget execution rules rigorously. However, the economy's dependency on public expenditure meant that this approach soon became politically unviable, as it constrained growth. Lopes was replaced in May 2013 after the execution rate for PIP projects had dropped to 60 per cent.⁶⁵ This led to a new period of accelerated, pro-cyclical spending on public investments – a spree that continued until the onset of the 2014 economic crisis.

A further problem is that Angola suffers from very low levels of transparency in public finances, scoring well below its regional peers in the International Budget Partnerships Open Budget Index.⁶⁶ It has only been subject to one PEFA (public expenditure and financial accountability) assessment, conducted in 2016, for which the results have not yet been published.⁶⁷ There is a complete lack of transparency concerning implementation of the NDP (see 'What was achieved?' section, above).

In terms of competitive and transparent tendering, limited progress has been made. The National Procurement Service (SNCP) has gradually started playing a role that could become important with time. The SNCP oversees public procurement, supports the identification and implementation of procurement policies and good practices, and reviews the extent to which contracting agencies follow procedures.⁶⁸ Such audits are useful if they lead to increased compliance with legislation. Importantly, the agency also releases statistics in publicly available reports. It has published biannual reports regularly since 2014. This type of data can help increase transparency of procurement. The SNCP has also published a guide to public procurement in Angola, summarizing the legal and institutional framework within the field (also see Box 2).⁶⁹

Despite these changes, the updated legal framework does not seem to strengthen public investment management sufficiently. Not enough has been done to increase integrity and transparency through infrastructure data disclosure. Currently, efforts to support transparency mostly rely on the National Procurement Portal, which did not yet list any tender announcements or adjudications related to dispute resolution prior to 2018.⁷⁰ The legal framework does offer a small opening for improved transparency, thanks to its rules on disclosure on request, although this feature of the law is often overlooked. As part of the procurement process, procuring entities are obliged to prepare a number of documents describing the nature of each project (*peças de procedimento*). For public works, the required documentation includes a detailed specification of each project (*caderno de encargos*).

⁶⁵ Fjeldstad, O.-H., Jensen, S. K. and Paulo, F. M. (2014), 'The non-oil tax reform in Angola – On track or losing momentum?', *CMI*, <https://www.cmi.no/publications/5052-the-non-oil-tax-reform-in-angola> (accessed 9 Feb. 2018).

⁶⁶ International Budget Partnership (2017), *Open Budget Survey 2017, Angola*, <https://www.internationalbudget.org/wp-content/uploads/angola-open-budget-survey-2017-summary-english.pdf>.

⁶⁷ PEFA, Angola, <https://pefa.org/country/angola>.

⁶⁸ Government of Angola (2015), *Diário da República*, I série N.º 118, Decreto Presidencial n.º 162/15 de 19 de Agosto de 2015.

⁶⁹ Serviço Nacional da Contratação Pública (2016), *Manual Prático da Contratação Pública Angolana*, Luanda: Serviço Nacional da Contratação Pública, <http://www.minfin.gov.ao/cs/groups/public/documents/document/zmlu/mdex/~edisp/minfin011339.pdf> (accessed 9 Feb. 2018).

⁷⁰ <http://www.contratacaopublica.minfin.gov.ao/PortalSNCP>. Some tenders have since been published, which is a major improvement.

Documents must be made available upon request to all 'interested parties' (*partes interessadas*), which, narrowly defined, include prospective bidders but could also be interpreted as applying to a broader set of stakeholders.⁷¹ However, to date even groups directly involved in tracking public infrastructure delivery have rarely availed themselves of this facility, which in any case does not obviate the need for proactive infrastructure data disclosure by the government.

Box 2: Updated procurement legislation

The legal framework for procurement, updated in 2016 (*Decreto Presidencial No. 198/16*), aims to address some of the implementation challenges identified since the initial procurement law was enacted in 2010. The Public Contracts Code establishes four modalities for contracting: public tender (without a qualification phase); limited tender with pre-qualification; limited tender by invitation; and simplified tender, whereby a contract can be awarded directly to a single bidder. The latter replaces the negotiated procedure, which is now considered a component of all public contracting. All contracts valued at Kz 182 million (US\$1.5 million, at the 2015 exchange rate) and above must be subject to either public tender or limited tender with pre-qualification.

This represents a strengthening of the requirements, as it significantly lowers the previous threshold of Kz 500 million, set in the 2010 legislation. Only contracts valued at less than Kz 182 million can be awarded through limited tender by invitation. As a general rule, simplified tenders can be used only for contracts valued below Kz 5 million (US\$41,300 at the 2015 exchange rate), but the law establishes a host of exemptions that essentially make it fairly easy to justify contracting with very limited competition and openness.

The law outlines general rules for framework contracts; these rules have yet to be specified in secondary legislation. The requirement for certain contracts to be approved by the President of the Republic seems to have been removed; under the previous law, projects valued above Kz 1 billion (US\$8.3 million) needed presidential approval.

Procurement remains devolved to public procurement entities, with all government budget units (ministries, state-owned companies, provincial governments, municipal administrations etc.) entitled to contract out the supply of goods and services. The 2016 law expands procurement rights to embassies and foreign representations. The National Procurement Service (SNCP), initially created under the 2010 law, was formally established in December 2013 but became fully operational only in 2015. SNCP is a regulatory agency focusing mainly on monitoring procurement entities' compliance with the legal framework, and on receiving and settling tender complaints. It has the power to terminate contracts that do not comply with the law, and can refer suspicious cases to the internal inspection or supreme audit authorities.

Significant resources have also been invested in building capacity within the decentralized procurement agencies. This is important, as enforcement of procurement rules has been weak historically. In an unpublished study, Soreide et al. found that procurement procedures had been followed in only one-third of a sample of cases (see footnote 16).

The new law introduces two practices that hold promise for improving transparency and monitoring of public infrastructure delivery. The first is the creation of a National Procurement Portal (Article 12). The second is the creation of a list of companies that undertake construction work for the government. The details of how the list will be managed are, however, left to the discretion of the President of the Republic (Article 13).

Nor does the new legal framework reinforce mechanisms that would increase the consequences of non-compliance with laws and regulations. For example, it fails to strengthen the authorities' ability to prevent modifications to project budgets, which would help to reduce cost overruns and project delays. The altering of contract prices after project initiation has been a persistent challenge for Angola, with project costs often exceeding the amounts indicated in the procurement process.

⁷¹ The possibility of this interpretation of the legal framework applying was discussed in an interview with SNCP staff. They confirmed that it would be possible in principle for stakeholders to obtain detailed information about planned infrastructure in this manner. Interview, officials from the SNCP, Luanda, February 2016.

This increases the cost of infrastructure delivery for the government, makes financially viable projects unviable, and drains public resources. This flaw in the system is even more of a concern given the current economic and fiscal context, with the government struggling to balance the budget. These issues have been identified as key weaknesses affecting the implementation phase of public investment management.⁷²

In the post-crisis period, the National Directorate of Public Investment of the Ministry of Planning and Territorial Development tightened the requirements for project appraisal, selection and monitoring. It also reinforced the public investment database, SIPIP; invested in increased capacity for project preparation; and developed a manual for project monitoring and quality assessment through, among other things, field visits.⁷³ These efforts do not seem to have been systematic, however, and there is room for further improvement, including through the development of sensitivity analyses and risk-mitigation measures. The ministry also needs to adopt systematic *ex ante* and *ex post* evaluations, and to put in place procedures for feeding the lessons of these evaluations back into future arrangements for project appraisal, selection and monitoring.

Historically, the Angolan authorities have paid limited attention to the monitoring of public assets. Monitoring was severely impaired by the civil war, and it has taken years to address this gap.

Historically, the Angolan authorities have paid limited attention to the monitoring of public assets. Monitoring was severely impaired by the civil war, and it has taken years to address this gap. When the SIGFE platform was introduced in 2004, it did not include public assets that had been acquired in the past. Currently the government relies on an integrated system for public asset management (SIGPE), which is a module of SIGFE and not yet fully integrated with SIPIP.⁷⁴ An annual survey of the total value of public assets is used to update the system and inform the general state accounts (*Conta Geral do Estado*). In 2013, inputs were obtained from 1,576 public entities (covering 80 per cent of all public entities targeted); the resultant data put the value of public assets at approximately Kz 6 trillion (roughly US\$60 billion). When the exercise was repeated in 2014, the value of public assets was estimated to have declined by 8 per cent to Kz 5.6 trillion, although the survey's coverage increased to 87 per cent of targeted public entities.⁷⁵ This suggests that insufficient attention is given to maintenance.

Although the annual valuation of public assets is presented in the general state accounts, there are concerns about the accuracy of estimates of present value. Due to limited capacity, such concerns are particularly acute in respect of assessments of the physical condition of assets. Public investment projects that have yet to be completed are excluded from the valuation. There have also been concerns about the informality of the process for the handover of assets from contractor to government after project completion, and the implications for when an asset is to be included in the system. Although the new system is relatively unsophisticated and not yet complete – pre-2014 assets are still being incorporated

⁷² IMF (2015), *Angola: Selected Issues*, p. 13; and Soreide et al. (unpublished), 'Towards "value for money" in Angolan construction projects', p. 31.

⁷³ World Bank (2015), *First Fiscal Management Development Policy Financing*, p. 26; and interview with official in the Ministry of Planning in Luanda, February 2016 (in the interview, reference was made to a presidential decree on the project monitoring approach, but it has not been possible to locate this decree).

⁷⁴ *Ibid.*, p. 27.

⁷⁵ Republic of Angola, Ministry of Finance (2016), *Conta Geral do Estado, Exercício Fiscal 2014*, p. 60, <http://www.minfin.gov.ao/PortalMinfin/faces/contageraldoestado> (accessed 9 Feb. 2018).

into it – some progress is being made in the monitoring of assets.⁷⁶ Areas for improvement would include strengthening the capacity to prepare year-on-year comparisons of increases in the asset base (i.e. additional infrastructure) and losses of asset value (due to poor maintenance).

Status of Angola's public investment management

Public investment management in Angola is extremely weak across most of the 15 categories ('institutions') in the IMF's PIMA framework. Weaknesses in each of these areas provide a powerful explanation for the country's poor record of infrastructure governance and modest achievements, despite massive investments, in the post-civil war era. Had the government invested seriously in strengthening institutions, it might well have achieved the same or better results with fewer resources, and almost certainly would have obtained greater value for money. There is an urgent need to speed up reforms aimed at improving the quality of public investment, in order to get more value from increasingly scarce resources.

⁷⁶ Republic of Angola, Ministry of Finance (undated), <http://www.minfin.gov.ao/PortalMinfin>.

4. Private-sector Capacity and Oversight

Infrastructure delivery in many countries is dependent not only on the quality of public institutions responsible for public investment management, but also to a significant extent on the performance of private contractors. This makes oversight of the private sector crucial.

Characteristics of the local construction sector and local content

The participation of domestic enterprises in the construction of public infrastructure – sometimes referred to as ‘local content’ – is often seen as a way to increase the sustainability of public investments and generate skills, income and local employment. The organization Engineers Against Poverty defines local content in infrastructure as including ‘... the involvement of local enterprises and labour in planning, design and construction services, as well as the local added value in transactions occurring throughout a contractor’s supply chain’.⁷⁷ The idea is most obviously applicable to contexts in which infrastructure financing comes from external sources and not, as in the case of Angola, predominantly from domestically mobilized resources; it is perhaps assumed that in the latter case the prioritization of local content happens automatically.

Angola nonetheless faces some of the same issues encountered by countries in which the local-content narrative is more relevant. Despite having become (temporarily) an upper-middle-income country in terms of gross national income (GNI) per capita, it has encountered capacity constraints similar to those of some low-income countries. Its combination of rapid GDP growth and high demand for reconstruction after the civil war exceeded the capacity of local enterprises, labour and supply chains. Moreover, the aforementioned lack of openness in the public finances, along with the existence of a patronage-based governance structure (in which money and favours are allocated by the well-connected to clients, including to foreign companies), has created an uneven playing field for private enterprises. Rent-seeking prevails, with very limited accountability in the delivery of public infrastructure.⁷⁸

Traditionally, the construction of public infrastructure in Angola has been dominated by Portuguese and Brazilian companies. Chinese companies are a more recent, but significant, presence. Some would argue that the government, despite officially being in favour of the participation of domestic actors, has failed to use the reconstruction phase to develop an Angolan construction industry capable of competing with foreign companies. A growing number of Angolan enterprises are reportedly involved in infrastructure development, but it is hard to verify this because there is no public registry of enterprises carrying out work for the government. There is also a culture of secrecy in the sector.⁷⁹ Companies undertaking construction work for the government are now legally required to register with it, but the law does not require these details to be publicly accessible.⁸⁰

⁷⁷ Wells, J. and Hawkins, J. (2008), *Increasing local content in the procurement of infrastructure projects in low income countries*, London: Engineers Against Poverty, p. 7, <http://www.engineersagainstopoverty.org/documentdownload.axd?documentresourceid=23> (accessed 9 Feb. 2018).

⁷⁸ Vines, A., Shaxson, N., Rimli, L. and Heymans, C. (2005), *Angola: Drivers of change: an overview*, London: Royal Institute of International Affairs, p. 7, <http://www.gsdrc.org/docs/open/doc87.pdf> (accessed 9 Feb. 2018).

⁷⁹ Companies were extremely hesitant to engage in the research, with only companies contacted through the Portuguese embassy responding positively to interview requests. Efforts were made to obtain contacts with companies through the Regulatory Institute for Civic Construction and Public Works (IRCCOP). This institution had previously committed to disclosing information about companies. However, only company names, without contact details, were provided.

⁸⁰ Government of Angola (2015), *Diário da República*, I série N.º 136, Decreto Presidencial n.º 189/15, de 5 de Outubro de 2015.

Moreover, it is not necessarily straightforward to distinguish between a foreign enterprise and a domestic one. The recently modified law on private investment defines an Angolan company as one legally constituted in Angola, with headquarters in the country and at least 51 per cent of its capital stock owned by Angolan citizens.⁸¹ For practical reasons, foreign companies with (or aiming to achieve) a consolidated presence in the country will thus typically prefer to legally form an Angolan company, as this offers a range of advantages. While it is possible to operate as a foreign company by setting up a representative office, such a firm would not be entitled to make investments. In addition, in some sectors (power and water, hotels and tourism, transport and logistics, civil construction, telecoms and IT, media) it is a legal requirement for foreign companies to use Angolan partners when making new investments.⁸² Opting for locally owned companies or joint ventures is also favoured because a range of other incentives are available to domestic companies. However, the mere act of foreign companies setting up operations through local partners reveals little about the true level of local content in the country. Nor does it reliably indicate whether localization is likely to have positive implications for the quality of infrastructure in the long term, its maintenance or the skills development of Angolans.

Foreign access to the lucrative Angolan market has historically been highly constrained, so the notion of ownership has not traditionally been linked to any requirement for the Angolan counterpart in a joint venture to contribute proportionate levels of investment capital. Anecdotal evidence suggests that in some instances the relevant authority would simply designate (through the now-defunct National Agency for Private Investment, ANIP) a local partner for the foreign company entering the market. When ANIP was shut down in 2015, a new Agency for Promotion of Investment and Exports of Angola (*Agência para a Promoção de Investimento e Exportações de Angola Nacional*) – APIEX – was created.

Although it took over some of ANIP's functions, APIEX focuses more on promoting investment opportunities. Significantly, it has no role in authorizing investments. That authority is now vested in sector ministries and, for high-value projects, the presidency. Meanwhile, a Technical Unit for Private Investment (*Unidade Técnica para o Investimento Privado*) – UTIP – was formed to advise the president on investments above US\$10 million, the approval of which lies beyond the scope of individual ministries, according to the new private investment law. However, the devolution from ANIP to line ministries and the presidency of the authority to approve foreign investments may not necessarily improve past practices.⁸³

One of the challenges of boosting local content has been to cope with the sheer volume and pace of work associated with the massive reconstruction effort in the country, as existing capacity in the private sector is limited.

In terms of restructuring supply chains, the government has experience from the oil sector, where significant efforts have been made to increase local content. Policymakers saw it as imperative to first strengthen local content in this sector, given its dominance in the economy, but the concept has been widened to other sectors, including construction. One of the challenges of boosting local content has been to cope with the sheer volume and pace of work associated with the massive reconstruction effort in the country, as existing capacity in the private sector is limited. For example, the agreements on credit lines with China initially called for 30 per cent of labour and materials to be locally procured.

⁸¹ Government of Angola (2015), *Diário da República*, I série N.º 115, Lei 14/15 de 11 de Agosto de 2015.

⁸² Robles, J. (2018), 'Doing business in Angola', Thomson Reuters Practical Law, <http://uk.practicallaw.com/9-517-9446> (accessed 22 Feb. 2018). As always, there seem to be exceptions to the rule, such as with the Portuguese companies Teixeira Duarte and Soares da Costa. Odebrecht, a Brazilian conglomerate, has only recently moved to set up legally as an Angola company.

⁸³ In March 2018, further reforms were made to the foreign investment promotion regime, with APIEX being renamed AIPEX. It is beyond the scope of this research paper to analyse the most recent changes.

However, Angolan industry was unable to meet demand. There were also significant challenges, due to cultural differences, in terms of Angolans adapting to Chinese working practices and expectations. For these reasons, the Angolan government retreated from the original local-content requirements.⁸⁴ Similarly, the public procurement law established that 25 per cent of spending on goods, services and works should go to micro, small and medium-sized enterprises. However, by 2015 the share of procurement spending accounted for by such firms had reached only 2.6 per cent, partly due to difficulties over the reliability of supplies and services.

Addressing the skills gap

In addition to the rules on legally constituting as Angolan companies, foreign firms face requirements to train and use local labour. A policy requiring the use of Angolan labour in companies at all levels of staff seniority, including management, has been in place for more than a decade. Oil companies had to adapt to this requirement in the 2000s when the 'Angolanization' policy was put into effect. This stipulated that 70 per cent of labour (including senior management) must be Angolan. Field research has found that the 70 per cent rule is generally easily met in the construction sector: typically, 80–90 per cent of the workforce in large construction companies is made up of Angolan nationals, as projects employ thousands of people and it is too expensive to bring in large numbers of foreign experts.⁸⁵ No official data are available disaggregating the number of staff by level of seniority, but anecdotal evidence points to a higher percentage of foreign (typically Portuguese) staff at management level. Even if such data existed, however, the picture would be obscured by the existence of a very high number of holders of dual Angolan and Portuguese nationality. (More than 200,000 Portuguese citizens have dual nationality of some kind, although the statistics do not reveal the other nationality held; nor do the figures indicate whether Portuguese is considered the primary or secondary nationality.)⁸⁶

In light of the above, one can argue that the origin and legal location of construction companies are perhaps not the most important factors in the development and sustainability of infrastructure in Angola. It is neither a low-income country with a negligible market size, nor reliant on externally funded infrastructure development involving foreign construction companies that typically remain in the country only in the short term. Indeed, several characteristics of the Angolan market have created incentives for foreign companies to seek a longer-term presence. It is a sizeable and historically lucrative market, access to which is difficult and thus prized. It has a huge infrastructure gap, and strong political commitment to funding construction. Although this commitment was driven to a significant extent by the oil boom and related fiscal revenue, which has subsequently declined, Angola remains one of the largest economies in Africa. Companies are likely to try to sit out the crisis, waiting for conditions to improve (this constitutes another reason for reform of both public investment management and the wider business environment). In this scenario, sustainability, economic growth and poverty reduction are likely to be addressed predominantly by investment in reducing the skills gap – i.e. through training and education, including via apprenticeships, internships and other types of on-the-job training.

⁸⁴ Interview, Luanda, October 2015.

⁸⁵ Interview, Luanda, October 2015.

⁸⁶ Agência Lusa (2014), *Crece número de portugueses a pedir nacionalidade angolana e moçambicana*, SAPO, 24 de Abril de 2014, http://noticias.sapo.pt/nacional/artigo/crece-numero-de-portugueses-a-pedir-nacionalidade-angolana-e-mocambicana_17479990.html.

Currently, some companies make systematic efforts to train staff and develop a more proficient and committed workforce by offering enrolment in vocational training programmes.⁸⁷ At government level, the 2013–20 National High- and Mid-Level Staff Training Plan (PNFQ) has been launched.⁸⁸ It targets eight cohorts/areas of activity: higher education graduates; secondary education graduates; training of teachers and researchers for high-level education; training of primary and secondary teachers and education specialists; training of public-sector staff; training in entrepreneurship and business development; public support of scholarships; and professional job training. Both training conducted by companies and the strategic approach of the government are important in efforts to start addressing the skills gap in Angola.

Challenging business environment

Angola ranks as one of the worst countries in the world for doing business. It ranked 140th out of 144 economies in the 2014–2015 Global Competitiveness Index (GCI), developed by the World Economic Forum.⁸⁹ The GCI measures a range of indicators across 12 categories or 'pillars' that, in addition to traditional markers of competitiveness such as macroeconomic environment, labour market efficiency and infrastructure, include indicators related to health, education and innovation. Angola's strengths lie in its market size and macroeconomic environment (the 2014–15 edition drew on data from before the onset of the country's economic and fiscal crisis). The country's four most problematic factors for businesses are a lack of access to financing, an inadequately educated workforce, an inadequate supply of infrastructure, and corruption.

Angola ranked 140th out of 144 economies in the 2014–2015 Global Competitiveness Index (GCI), developed by the World Economic Forum.

Inefficient bureaucracy is a further significant constraint to doing business in Angola, both for foreign companies and for local small and medium-sized enterprises.⁹⁰ The World Bank's 2016 Doing Business rankings estimate that it takes 203 days to obtain the construction permits required to build a warehouse in Angola.⁹¹ This compares to an average of 162.2 days for sub-Saharan Africa. On the other hand, the cost of obtaining the permits in Angola is comparatively low. The cost – assessed as the percentage of the warehouse's value – is only 0.5 per cent in Angola, compared with an average of 6.6 per cent for sub-Saharan Africa. There was broad agreement among stakeholders interviewed for this research paper that neither the time nor the cost referenced in the rankings reflect the reality on the ground, and that endemic corruption in the sector is the main problem.⁹² Few private actors can afford to wait 203 days to obtain a construction permit, and they will therefore seek alternative ways to speed up the process when dealing with public officials. This creates a fertile environment for the extraction of rents. Unfortunately, the endemic and entrenched nature of rent-seeking and corruption in Angola means that these practices will be difficult to root out.

⁸⁷ The research team visited one of these training centres. At a first glance, it was very impressive, with good conditions offered, although the activities presented were related to training of car mechanics and retail and not specifically to construction. Site visit and interview, Luanda, 3 November 2015.

⁸⁸ This is the official English translation from the Portuguese *Plano Nacional de Formação de Quadros*. 'Quadros' perhaps translates better into professional or skilled persons. The plan is aimed at strengthening human resources within many professions in the private and public sectors.

⁸⁹ Schwab, K. (2014), *The Global Competitiveness Report 2014–2015*, World Economic Forum, p. 13, pp. 108–09, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf (accessed 2 Mar. 2018).

⁹⁰ *Ibid.*, p. 108.

⁹¹ World Bank (2016), *Doing Business 2016*, p. 184.

⁹² Several interviews, Luanda, February 2016.

Corruption

Angola is one of the most corrupt countries in the world, ranking 164th out of 176 countries in Transparency International's Corruption Perceptions Index in 2016.⁹³ Equally, Angola is near the bottom of the World Bank's 2016 WGI, with a percentile rank for control of corruption of 5.77 (the scores range from 0 for worst to 100 for best).⁹⁴ There is little doubt that corruption has had a negative impact on infrastructure delivery in Angola. A significant study by Åkesson and Orjuela (2017) documents extensive corruption in the construction sector. Based on 55 in-depth interviews, the study examines systematic corrupt practices among Angolan officials and Portuguese immigrants, including representatives of companies in the construction sector who '... talked very openly about corruption as an intrinsic part of conducting business in Angola ...'.⁹⁵ In one highly telling quote, an interviewee working for a large construction company revealed corruption in the procurement process:

There are always envelopes. And you have to know the people who are responsible for the competition [procurement process]. Then when you win the contract you share the profit with them. The Angolans only accept companies that give [bribes]. Other companies will not enter.⁹⁶

In a similar vein, interviewees in the study indicated that bids were often submitted with significantly inflated values to enable payment of kickbacks, and that this resulted in the extraction of massive rents from the public finances. They also indicated that projects were deliberately set up so that the infrastructure being built lacked durability, as this provided the possibility for profitable repeat business (infrastructure being more lucrative than other types of public expenditure).⁹⁷ Such practices have dramatically increased the cost of the limited infrastructure that has been completed in the past 15 years, and have reduced opportunities for public savings that could have helped cushion the impact of the post-2014 economic crisis.

Box 3: The importance of connections, or *socios*

International companies that are successful in Angola have one thing in common. They have good business partners, or *socios* as these are called in Portuguese. The Portuguese word is used here because it has a certain meaning in the Angolan context which is not well captured by the English translation 'business partner'. Historically, the term has been associated with persons from the elite being appointed as partners in foreign investments – in some cases without contributing anything other than their presence as a co-owner. In the oil sector, the use of *socios* has been linked to the practice of 'carried interest' transactions, in which stakes in extractive ventures are offered to domestic business partners on the understanding that the cost will be paid back with future oil revenue. Today, and perhaps particularly in the construction sector, the *socio* concept relates to individuals with 'access' and 'connections' to the right, powerful people within the system who are therefore in a position to solve problems in a speedy and effective manner.

Corruption is an impediment to foreign investment, economic growth and the establishment of a level playing field that would allow local-content legislation to have an impact beyond the established elite. The increased importance of international anti-corruption legislation, such as the UK Bribery Act 2010 and the US Foreign Corrupt Practices Act 1977, means that foreign companies are worried about corruption even prior to attempting to enter the Angolan market. While the US legislation has a degree

⁹³ Transparency International (2017), *Corruption Perceptions Index 2016*.

⁹⁴ World Bank (2017), *Worldwide Governance Indicators*.

⁹⁵ Åkesson, L. and Orjuela, C. (2017), 'North-South Migration and the Corrupt Other: Practices of Bribery among Portuguese Migrants in Angola', *Geopolitics*, DOI: 10.1080/14650045.2017.1379510, p. 14, <https://www.tandfonline.com/doi/pdf/10.1080/14650045.2017.1379510>.

⁹⁶ Ibid.

⁹⁷ Interview, Luanda, February 2016.

of international reach, as those who make corrupt payments through the US financial system can already be prosecuted in the US, countries like Portugal and Brazil need to pursue similar anti-corruption legislation.⁹⁸ In Brazil, the recent 'Lava Jato' scandal – which had links to Angola and 14 other countries – is expected to provide political momentum for reforms. From a purely Angolan perspective, addressing corruption needs to be a priority as the government seeks to attract foreign investment.

Paradoxically, several individuals interviewed for this paper from different sectors expressed the view that bribery is relatively 'inefficient' in Angola. That is, the act of bribing someone cannot be relied on to deliver the expected outcome. This is partially due to the obvious fact that corruption is illegal, making it problematic to seek redress should services not be delivered. The other difficulty is that it is often impossible to know who is in a position to actually deliver a particular favour or service, and who is just pretending to be in a position to do so. Moreover, the status of different power brokers is in constant flux. Instead, interviewees indicated that the key to effective business relationships in Angola is to have a powerful and well-connected *socio* ('partner', see Box 3) who can open doors and solve problems.

Opportunities for international business – the UK prosperity agenda

What does all this mean for the UK? Over the next couple of years, Angola will have to continue to overcome the shock to the economy caused by lower oil prices and complete a significant political transition, following the installation of João Lourenço as president in September 2017. Both developments open potential opportunities for reform, which in turn could enable UK companies to enter a market of significant size and strategic importance on the African continent. The Angolan government's focus on diversifying the economy away from dependency on oil opens opportunities beyond the extractives sector, and British expertise and standards in many other sectors are well regarded. Angola might indeed be one of the countries that (as suggested by its inclusion in the High-Level Prosperity Partnership) the UK would do well to consider building stronger ties with as it leaves the European Union.⁹⁹

That said, there remain significant challenges for UK companies seeking to invest in Angola – not least, the critical need to identify a strong business partner; the risks of becoming involved in collusion and corruption; and more basic issues such as language barriers and complex visa requirements. Health, security and safety issues are also of concern. Most of these challenges can be overcome, and some are likely to be addressed through reforms in the near future. It is key, however, that British companies maintain very high standards on due diligence and in their anti-corruption policies.

⁹⁸ This was the main link used in the 2015 FIFA corruption scandal. See, for example, Rose, C. (2015), 'The FIFA Corruption Scandal from the Perspective of Public International Law', *American Society of International Law*, 23 October 2015, <https://www.asil.org/insights/volume/19/issue/23/fifa-corruption-scandal-perspective-public-international-law>.

⁹⁹ The UK's Department for International Trade has produced a guide to doing business in Angola, available at <https://www.gov.uk/government/publications/exporting-to-angola/doing-business-in-angola-angola-trade-and-export-guide>.

5. Conclusion and Recommendations

For most of the 2006–15 period, Angola found itself in the unusual position of having more resources than it could efficiently spend. Despite its resource abundance, it faced many of the same types of challenges – in terms of quality of institutions and capacity of industry – as other low-income countries emerging from civil war. In the area of infrastructure, this was evident in the limited value for money achieved, despite significant investments.

Angola would have benefited substantially from strengthening the institutions governing public investment and infrastructure delivery. In hindsight, it would also have done well to accumulate far more of its resource revenue in a stabilization fund, which could have helped to smooth out fluctuations in oil revenue and made it easier to cope with the economic and fiscal challenges following the downturn in international oil prices from mid-2014. The government's lax management of resource revenue bears witness to its unrealistic expectation that oil prices would remain high, and reinforces the impression that there was too much money around, with too little oversight, to ensure prudent management of the country's resource wealth. Rent-seeking through kickbacks and other corrupt practices were left largely unchecked, which increased the use of available resources but reduced their effectiveness in supporting post-war reconstruction through quality infrastructure.

In the current context of fiscal constraint and rising public debt, it is critical that the Angolan authorities get a full picture of the efficiency shortcomings of past major investments, and that bold reforms are undertaken to make public investment more efficient.

In the current context of fiscal constraint and rising public debt, it is critical that the Angolan authorities get a full picture of the efficiency shortcomings of past major investments, and that bold reforms are undertaken to make public investment more efficient. The IMF's new PIMA framework, and the OECD's recent recommendations on policy options for infrastructure governance, represent good starting points. However, the Angolan context requires even more emphasis on reforms that promote transparency and accountability, as well as on those likely to generate income and employment, contribute to inclusive economic growth and aid poverty reduction.

To signal a fresh start, the authorities should immediately ensure that the National Procurement Portal becomes fully operational and lists all ongoing tender processes. The government should also make public the registry of construction companies involved in public works projects. It should consider adopting the Infrastructure Data Standard of the Construction Sector Transparency international multi-stakeholder initiative. This would require disclosing 40 data points on infrastructure investments – including the project scope, cost and completion date of projects, and variances against such criteria – at the end of each construction project in a systematic manner. Future investments should also be subject to approval only if social impact studies have been conducted, and if projects have demonstrated likely positive social impacts in addition to economic feasibility.

Priority should be given to programmes that provide finance for small projects over those that finance megaprojects. The government's own integrated programme for rural development and poverty reduction (which could be expanded to cover peri-urban areas) represents an initiative that should be maintained and improved through better governance mechanisms.

UK and other foreign companies with or planning to do business in Angola should strictly follow anti-corruption policies and due diligence procedures, as well as insisting that transparency and governance issues are addressed.

Acronyms and Abbreviations

AfDB	African Development Bank
AICD	Africa Infrastructure Country Diagnostic
ANIP	National Agency for Private Investment
APIEX	Agency for Promotion of Investment and Exports of Angola
GCI	Global Competitiveness Index
GDP	gross domestic product
GEPE	Studies, Planning and Statistics Departments
GNI	gross national income
GW	gigawatt(s)
GWh	gigawatt hour(s)
IMF	International Monetary Fund
INEA	Institute of Angolan Roads
LIDC	low-income developing country
MPLA	People's Movement for the Liberation of Angola
MW	megawatt(s)
NDP	National Development Plan
OECD	Organisation for Economic Co-operation and Development
PEFA	Public Expenditure and Financial Accountability
PIE-X	Public Investment Efficiency Indicator
PIMA	Public Investment Management Assessment
PIP	Public Investment Programme
PNFQ	National High- and Mid-Level Staff Training Plan
PPP	public-private partnership
SIGFE	Integrated Financial Management Information System
SIGPE	Integrated System for Public Asset Management
SIPIP	Integrated Public Investment Management System
SNCP	National Procurement Service
SWF	sovereign wealth fund
UTIP	Technical Unit for Private Investment
WGI	Worldwide Governance Indicators

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