# The role of Ports and Free Zones in the Development of Africa: The "Djibouti Model"

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This article is essentially a positive story of ports & free zones-led progress. Why are ports so critical? A well-organized port can make the difference between locally or, in the case of Djibouti, regionally produced products being viable for export, or priced out of the market [(1)]. A well-run facility builds self-reliance in the local executive management and economy, thus drawing new industry and investment, and promoting tourism. Furthermore, enhancements to port infrastructure frequently raise forces to shore up the weaker links in regional supply chains, such as below-standard roads and railways [(2)].

Free zones, which are gradually being built near, or hand in hand with, container ports, have been shown to be a highly effective impetus for light industrial and light assembly amenities, and a diversity of transport-related logistics including but not limited to warehousing and storage [(3)].

Notwithstanding the vital roles of ports, somewhat little empirical research has been done to formalize and quantify these relationships. A commonly cited "unwritten rule" embraces that for every dollar invested in a port, five dollars in new commercial activity are created in the local economy. However, the extent of this influence is exceedingly conditioned by local environments, including but not limited to the prevailing state of infrastructures, the scope of hinterland markets, and more importantly the amount and level of education of the local and available labor force. A number of studies based on US data claim minor multiplier effects associated with incremental improvements in port and road infrastructure [(4)]. Other research papers document the local economic profits of improved supply-chain integration, focused on ports, and the positive effect of port improvements and privatization on prevalence of corruption [(5)].

## The Republic of Djibouti

Almost of the dimension of Belgium with a population of less than one million, the Republic of Djibouti lies at the base of the Red Sea, next to the second busiest sea-lane in the world. The significance of the location is highlighted by the fact that fifty-two vessels and four million barrels of oil transit the strait per day, making it the fourth busiest waterway in the world, and the only one encircled by chaos (hence the name of Strait of Tears) [(6)]. Djibouti's strategic worth is boosted by the fact that it is a stable and democratic territory, crammed between gradually insecure Yemen to the north, and the failed state of Somalia to the southeast.

Characteristic of an emerging "logistic hub" economy, most of Djibouti's GDP is produced in the services sector -in Djibouti's case, transport, logistics banking and trade. China, US, France, Japan and NATO have military bases in Djibouti and contribute to the stability and security of the region.

### Djibouti in the 1990s: a challenging era

During the 1990s, the Djiboutian economy experienced a difficult time. The government spent much of the decade disagreeing with bilateral and multilateral creditors

(1) According to the United Nations Conference on Trade and Development (UNCTAD), freights share of the total value of imports is on average 8%- compared to 20-40% in some cases for developing countries. See PEDERSEN P. O. (2001), "Freight Transportation under Globalisation and its impact of Africa", *J. Transportation Geography*, 86.
(2) TALLEY W. K. (2009), *Port Economics, New York*, Routledge, pp. 7-9.
(3) DE LANGEN P. W. (2007), *The Economic Performance of Seaport Regions, in Ports, Cities and the Global Supply Chain*, eds. James Wang, Daniel Oliver, Theo Notteboom and Brian Slack, Ashgate Publishing, 202.
(4) COHEN J. P. & MONACO K. (2008), "Ports and Highway Infrastructure: An Analysis of Intra- and Inter-State Spillovers", *International Regional Science Review*, pp. 257-274.
(5) WANG J. & OLIVIER D. (2007), *Ports, Cities, and Global Supply Chains*, Ashgate Publishing.
(6) http://cimsec.org/gate-tears-interests-options-strategy-bab-el-mandeb-strait/35351, accessed on the 14th July 2019.

including the World Bank, the IMF and the French government about repayment of past debt and terms for new facilities. In exchange for debt restructuring and forgiveness, donors stipulated substantial budget reform, public sector belt-tightening, termination of various subventions on food and fuel, and decisively a privatization program for Djibouti's six major public establishments, including the port [(7)]. Djibouti resisted slashing wages for government personnel while rising taxes. Nonetheless, the government in 1996 introduced new tax cuts to placate an increasingly dissatisfied population. The IMF extended to Djibouti a stand-by credit of $6.7 million in April 1996, but rejected a second credit in September of the same year.

The Republic of Djibouti's flagship asset, its port, suffered too. Writing in 1996, CNRS researcher Eric Mercier described the facility as a "Pitiful figure": overpriced, disorganized and operated by an access channel of an insufficient depth to handle the newer generation vessels. The container terminal, while its operations had been *recently improved, was still considered unreliable, due to poor efficiency/slow movement and loss of containers* [(8)]. In addition, the oil facilities located inside the port posed substantial hazard during this era due to lack of management.

### Djibouti in the 2000s: turnaround period

By the turn of the millennium, nevertheless, transformations in the geopolitical and regional commercial scene presented new threats and opportunities to the Republic of Djibouti.

In 2000 and 2001, a series of terrorist attacks hit maritime interests at and near Aden. By 2002, Yemen was losing an estimated $3.8 million per month in port-related revenues, much of it to Djibouti [(9)]. By 1999, Ethiopia involved in bloodstained conflict with Eritrea had already begun to make up the lion's share of Djibouti's port traffic. 75% of traffic via the port of Djibouti was Ethiopian, 8% of local traffic was destined for Djibouti, while 17% was transshipment cargo headed to East African ports such as Dar es Salaam and Mombasa. Total throughput in 2000 was 2 million tons of bulk cargo (most of which was food), 1.5 million tons of oil product and 150,000 tons of miscellaneous cargo [(10)].

Ever-increasing Ethiopian volumes and transshipment destined for the region, greater security and stability joined with new infrastructures began to turn Djibouti from a backwater into a world-class regional hub once again.

## Macroeconomic Impact

Djibouti's macroeconomic summary over the years 2000-2018 is one of a fast emerging country undergoing noticeable growth in key sectors, particularly in logistics

**2000** – Privatization of the Management of the Port of Djibouti.

**2004** – Construction of Doraleh Oil Terminal (DOT) begins; Djibouti Free Zone (DFZ) established.

**2005** – Construction of Doraleh Oil Terminal (DOT) completed.

**2006** – Kempinski Djibouti Palace Hotel is completed.

**2009** – Doraleh Container Terminal/ a capacity of over 1 million TEU launched.

**2015** – Lunch of Air Djibouti/Red Sea Bunkering.

**2017** – Doraleh Multipurpose Port/ Tadjourah Port/ Goubet Port/Railway Djibouti to Ethiopia.

**2018** – Pilot Phase Djibouti International Free Trade Zone.

Total Investment completed: **2.2 Billion USD**.

**2020** – Djibouti International Container Terminal/ Damerjog Industrial free zone/Toll road N1.

**2021** – Two airports Hassan Gouled and Ahmed Dini/Djibouti Shipping Company.

Total estimated investment: **10.989 Billion USD** [(11)].

Figure 1: Djibouti Investment and Development Timeline.

**Evolution: Annual GDP Djibouti**

| **Date** | **Annual GDP** | **GDP Growth (%)** |
|---|---|---|
| **2018** | **2,187M.$** | **6.70%** |
| 2017 | 2,029M.$ | 6.70% |
| 2016 | 1,889M.$ | 6.50% |
| 2015 | 1,727M.$ | 6.50% |
| 2014 | 1,588M.$ | 6.00% |
| 2013 | 1,455M.$ | 5.00% |
| 2012 | 1,354M.$ | 4.80% |
| 2011 | 1,239M.$ | 7.30% |
| 2010 | 1,099M.$ | 4.10% |
| 2009 | 1,015M.$ | 1.60% |
| 2008 | 984M.$ | 5.80% |
| 2007 | 848M.$ | 5.00% |
| 2006 | 769M.$ | 4.80% |
| 2005 | 709M.$ | 3.10% |
| 2004 | 666M.$ | 2.80% |
| 2003 | 628M.$ | 3.20% |
| 2002 | 596M.$ | 3.20% |
| **2001** | **577M.$** | **1.80%** |
| **2000** | **556M.$** | |

Figure 2 [(12)]

**Evolution: GDP per capita Djibouti**

| **Date** | **GDP per capita** | **GDP P.C. Annual Growth** |
|---|---|---|
| **2018** | **2,281$** | **6.10%** |
| 2017 | 2,149$ | 5.70% |
| 2016 | 2,033$ | 7.60% |
| 2015 | 1,890$ | 6.90% |
| 2014 | 1,767$ | 10.90% |
| 2013 | 1,593$ | 4.60% |
| 2012 | 1,523$ | 6.30% |
| 2011 | 1,433$ | 9.70% |
| 2010 | 1,307$ | 5.30% |
| 2009 | 1,241$ | 0.40% |
| 2008 | 1,236$ | 12.90% |
| 2007 | 1,095$ | 7.30% |
| 2006 | 1,021$ | 5.50% |
| 2005 | 967$ | 3.50% |
| 2004 | 935$ | 3.30% |
| 2003 | 905$ | 2.40% |
| 2002 | 884$ | 0.40% |
| **2001** | **880$** | **1.10%** |
| **2000** | **871$** | |

Figure 3 [(13)]

(7) *Africa South of the Sahara*, Routledge, 2004, p. 379.
(8) MERCIER E. (1997), *Aden, un parcours interrompu*, in Collection « Villes du Monde Arabe » 3, p. 82.
(9) Middle East Shipping Company, "Why Aden?", Middle East Shipping, http://www.mideastshipping.com/why_aden.htm
(10) PAID data December 2000.

(11) DPFZA.
(12) Djbouti Ministry of Finance & Economy and https://countryeconomy.com/gdp/djibouti, accessed 14th July 2019.
(13) Djbouti Ministry of Finance & Economy and https://countryeconomy.com/gdp/djibouti, accessed 14th July 2019.

services and tourism. Djibouti's real GDP growth has followed the growth in foreign direct investment (FDI), rising from 3% in 2005 to 4.8% in 2006 and 5.4% in 2007. In 2007, FDI in Djibouti reached a peak. The accomplishment of several major investment projects in 2009 (including the Doraleh Container Terminal), combined with a lack of new FDI on the same scale, led to a decline in GDP growth to 4.8% in 2010.75 Between 2013-2018, the figure was up again with the recovery linked to the development of several projects and an increase of the FDIs since the financial crisis of 2008.

| Freight Categories | 2002 | 2018 |
|---|---|---|
| Containerized (TEU) | 176 000 | 870 000 |
| Liquid bulks- (metric tons) | 1 767 000 | 4 600 000 |
| Dry bulks: grain, fertilizer (metric tons) | 2 400 000 | 4 200 000 |

Figure 4 [14] : Djibouti port traffic, 2009-2010, by freight categories.

Djibouti is the main seaport for the nearly 100 million inhabitants of landlocked Ethiopia. Since the war between Ethiopia and Eritrea in 1997-2000, Ethiopia has not used any of the Eritrean ports, even though Assab is marginally closer to Addis than Djibouti. Ethiopia trusts comprehensively on Djibouti, which today handles about 93% of Ethiopia's imports and exports.

(14) DPFZA.
(15) Source: author' estimate (assembled from various reports).
Note: the total of 7,500 jobs is supported by data available from the National Social Security Fund, which cited just under 7,000 people working in transportation, communications, and tourism. The difference is linked to newly created jobs in DITFZ.

## Employment: Direct and Indirect hires

The transport & logistics and free zones sector employs nearly the equivalent of a quarter of the formal work force in the private sector. Nowadays there are about 6,500 direct jobs (public and private) in transport & logistics and free zones in Djibouti (see Figure 5). This is between 20% and 25% of total formal employment in the private sector of about 30,000 jobs. Applying multiplier factors estimated in some other major ports internationally, it is judicious to suppose that goods and services purchased by the port sustain further jobs by a multiple of 50%-80%, and expenditures by transport employees themselves support jobs of another 70%-100%, for a total impact of 2.5 to 3 times the direct employment. Accordingly, transport and logistics generate about 15,000 jobs, which represent 10% of total formal and informal employment in Djibouti and continue to grow steadily. Over the next twenty five years the newly inaugurated Djibouti International Free Trade Zone is expected to create an additional 100 000 jobs and contribute 5% to the GDP.

## Resulting Investments

In addition to the diverse organizations specialized in ports and free zones that have participated in the development of Djibouti, other regional and international institutions, including banks, development funds, oil & gas and etc., have entered the Djiboutian market during the last twenty years:

- Banks: Regional and international banks have been aggressively expanding into Djibouti in order to cater for the ever expanding expat and investor community. Saba Islamic Bank was the first one, followed by seven more [16];

(16) Banque Centralz de Djibouti (BCD).

| Entity | Jobs | Comments |
|---|---|---|
| Doraleh Container Terminal (DCT) | 750 | - 700 full-time staff<br>- 500 part-time employees working 60%-70% of the time |
| Port International de Djibouti (PAID) | 800 | In 2007, PAID had 1,300 full-time employees, including 300 handling containers which were transferred to DCT in 2009 |
| Freight forwarders | 1,500 | About 25 well-structured companies, each with 50-100 people |
| Shipping agents | 400-500 | |
| Dockers (PLS) | 1,000 | 3,800 day-hire dockers registered with BMOD (bureau de la main d'oeuvre des dockers – Dockers Labor Bureau), which corresponds to about 1,000 full-time |
| Djibouti Ethiopia-Railway | 260 | Newly opened railway |
| Djibouti Ports Corridors Road | 300 | Including about 60 staff of the Road Maintenance Fund |
| Ports and Free Zones Authority | 2,000 | Jobs in companies registered under the free zone regime. DITFZ, DFZ and 3PL providers (ukip, east Africa free zone). Total number of companies are 250 entities |
| | ~ 7,500 | |

Figure 5 [15] : Direct employment in transport & logistics, and free zones (formal sector).

- Oil and gas: Poly-GCL Petroleum Group Holdings Limited, Chinese oil and gas company, will construct a 767-kilometre natural gas pipeline between Ethiopia and Djibouti [17]. 2 billion USD;
- Energy: Engie signs a Memorandum of Understanding in Djibouti for 30 MW solar plant [18];
- Telecom: Djibouti launches regional 60Tbps submarine cable [19] 60 million USD.

## Challenges

Whereas the above stages have exemplified some of the positive effects of the twenty-year Djibouti-Private investors collaboration in the ports and free zones sector, there were and are a number of major challenges including convincing multilateral agencies, political stability, the generation of broader and deeper relationships with strategic partners, investment in complementary infrastructure, community development and environmental conservation.

### Observations from the Multilaterals agencies

The key multilateral development organizations, with which Djibouti was discussing a variety of structural adjustment packages in the 1990's, were not primarily convinced that investment in large-scale private and public infrastructures in Djibouti was the country's best choice. However, extracts taken from IMF and World Bank reports on Djibouti from 2002-2018 [20] demonstrate an increasing interest in the tangible effects of those choices. One report commends the Djibouti Free Zone (DFZ) for providing "fast, effective and inexpensive services, allowing a new business to be created in a short time frame (between three hours and three days). This compared to the situation outside the Free Zone, "where it takes approximately 37 days to open a business [21].

### Debt management

The inward-investment economic strategy has worked relatively well in boosting growth, which averaged 6 percent in 2013-2016. However, being mostly debt-financed, the investments have also led to a rapid increase of public debt that rose from 48 percent of GDP in 2014 to 85 percent in 2016 [22], about two-thirds of which being publicly guaranteed and on-lent loans to public enterprises. The government undertook a review of government's debt management functions and the legal framework, and it started a discussion with all stakeholders this year. Initial outcomes have shown that debt ratio to GDP has decreased to 71% with the stated objective of reaching to 41% in 2021 [23]. Exim bank has reviewed the term of some loans and extended both the grace period and the term for the railway project [24]. Finally, the GDP growth for the period 2019 -2024 is forecasted to be 7,3 to 8,6%.

While the Republic of Djibouti's debt load has caused many to question Djibouti's ability to continue business as usual, it is useful to recall various points over the past 10 years, particularly the early 1980s, when commentators were saying, "this time, Djibouti had gone too far with debt [25]".

### Developing Internal Infrastructures

Djibouti's basic value proposition revolves around being the primary hub for imports to, and exports from, the COMESA countries. In terms of "local" road improvements, the government has developed a strategy and plans to invest more than $150 million in road infrastructure linking the ports and free zone by 2020 [26] utilizing the newly formed entity under the management of Djibouti Ports and Free Zone Authority. Djibouti works comprehensively to develop "sea-air" capacity, both in terms of improving the airport capacity and instigating policies that would facilitate the country being used as a regional sea-air hub. The launch of a national carrier, Air Djibouti, in 2015 is a perfect illustration.

### Limiting Regional Tensions

I have detailed the political and economic conditions that transformed Djibouti from a "backwater" to a viable regional logistic hub. Regional volatility has fortified Djibouti's role as a safe and secure haven for both business and capital. All the same, too much of a bad thing can really be a bad thing: Djibouti's future hangs on collective efforts to manage several key flash points such as Somalia, Yemen, Ethiopia and even Egypt and Sudan.

## Looking forward: What next for Djibouti and the Djibouti Model?

As we have seen, Djibouti's development has been built on a series of cunning and rapid answers to a particular set of historical events, each of which offered further opportunities to develop another aspect of the Djibouti's transport & logistic and free zones focused economy. While Djibouti's debt load has caused many to doubt, the difference between then and now, of course, is how much of Djibouti's debt is related to "sub-productive" investments, as oppose to "premium investments" that would further solidify Djibouti's position versus other regional and global logistic hubs.

What we have appreciated in Djibouti in the last two decades is a classic of "assisted growth," whereby government, public entities and investors from different continents may have created together something resembling a "Big Push", the holy grail of 20th century development economists, who advanced conditions

(17) Ministry of energy.
(18) Ministry of energy.
(19) Ministry of Telecommunications.
(20) IMF, Country Report 2002-2018.
(21) World Bank, International Development Association Country Assistance Strategy For the Republic of Djibouti, World Bank Report No 47273-DJ, March 30, 2009, 15.
(22) World Bank, http://documents.worldbank.org/curated/en/301811541620828861/Djibouti-Plan-de-Réforme-de-la-Gestion-de-la-Dette
(23) Minister of Finance and Economy, June 2019.

(24) Minister of Finance and Economy, June 2019.
(25) https://foreignpolicy.com/2018/07/31/will-djibouti-become-latest-country-to-fall-into-china's-debt-trap/ (accessed on the 14th July 2019).
(26) DPFZA.

under which an industrializing or, in the case of Djibouti, a developing country might escape the “hurtful loop of poverty”.

Below are a few of the most characteristic (perhaps distinctive) features of what might eventually be called a “Djibouti Model of Development”.

- Ports and free zones have the potential to boost or unlock undeveloped commercial potential (typically on a regional level);
- Where possible, assisting with the development of transshipment and sea-air facilities, whether through management or construction of sea/air ports;
- Coordinated investment in multiple sectors of the partner economy, from ports and logistics to tourism and manufacturing. The latter is the reason why the new free zone was developed;
- Entering into long-term funding commitments (this follows directly from the fact that the nature of the business is long-term, based on concessions of 25 or more years);
- Commitments to develop local human capital, through extensive training programs, and employment targets that presuppose operations will be staffed almost entirely by locals within a few years.

Djibouti’s transformation has led others in the immediate region to consider the “Djibouti model”. The most noticeable example is neighboring Somaliland’s aspirations for port and free zones-led development, based on its well-positioned port at Berbera [27], which is already used as an entry point for Ethiopia-bound. Kenya is following the same path with the LAPSSET project [28]. Sudan had developed plans to renovate its maritime infrastructures and intends new airport and private sector investments [29].

(27) https://www.reuters.com/article/dp-world-somaliland/dp-world-launches
(28) http://www.lapsset.go.ke/
(29 https://www.reuters.com/article/us-turkey-sudan-port/turkey-to-restoresudanese-red-sea-port-and-build-naval-dock-idUSKBN1EK0ZC