



CENTER FOR INNOVATIVE
GOVERNANCE RESEARCH

Charter Cities:
**Location and embryonic growth
issues**

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- Location

- Trade routes

- Where does the population come from?

- Hinterland population

- Migration model : Dubai, Singapore?

- Embryonic growth

- Reaching critical size

- The embryonic period

- Cash flows

Location: cities created ex nihilo

•Ports

- Gibraltar
- Aden
- Port Said
- Djibouti
- Singapore
- Hong Kong
- Shenzhen
- Etc...

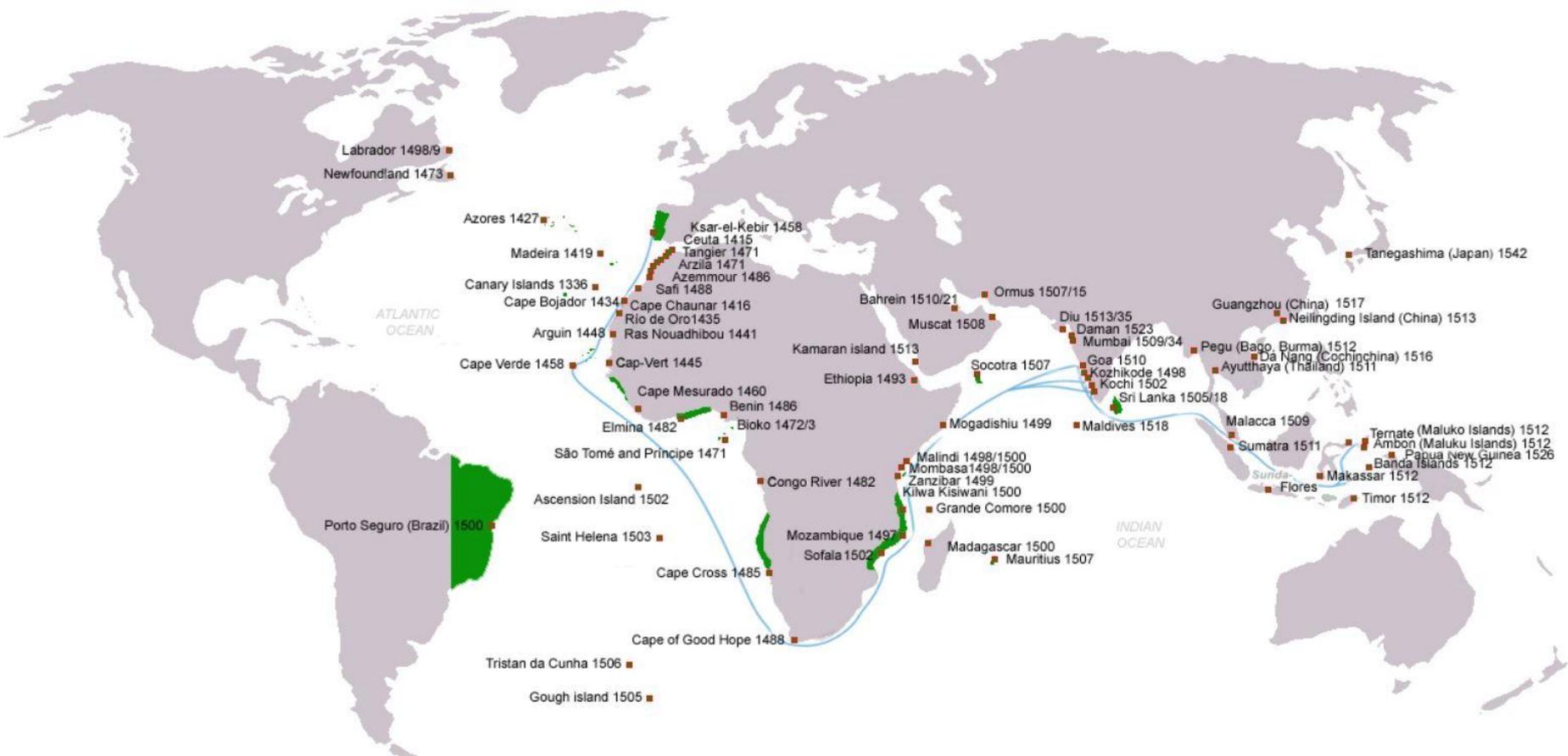
•Capitals

- Brasilia
- Canberra
- Chandigarh
- Islamabad
- Naypyidaw
- Abuja
- Etc...

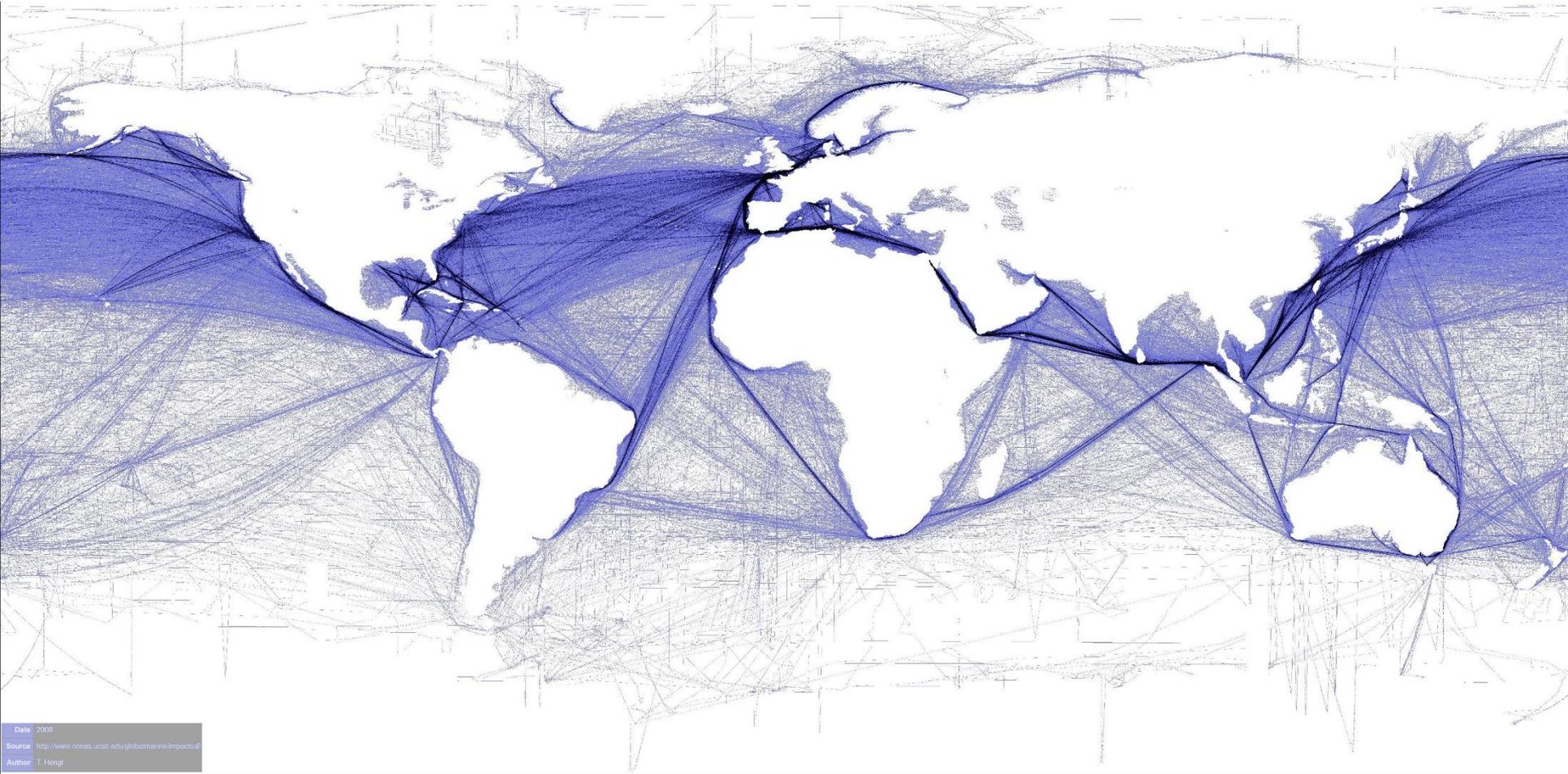
The location of cities has always been a large factor in their success and failures

At least until they reach a critical size of several million people

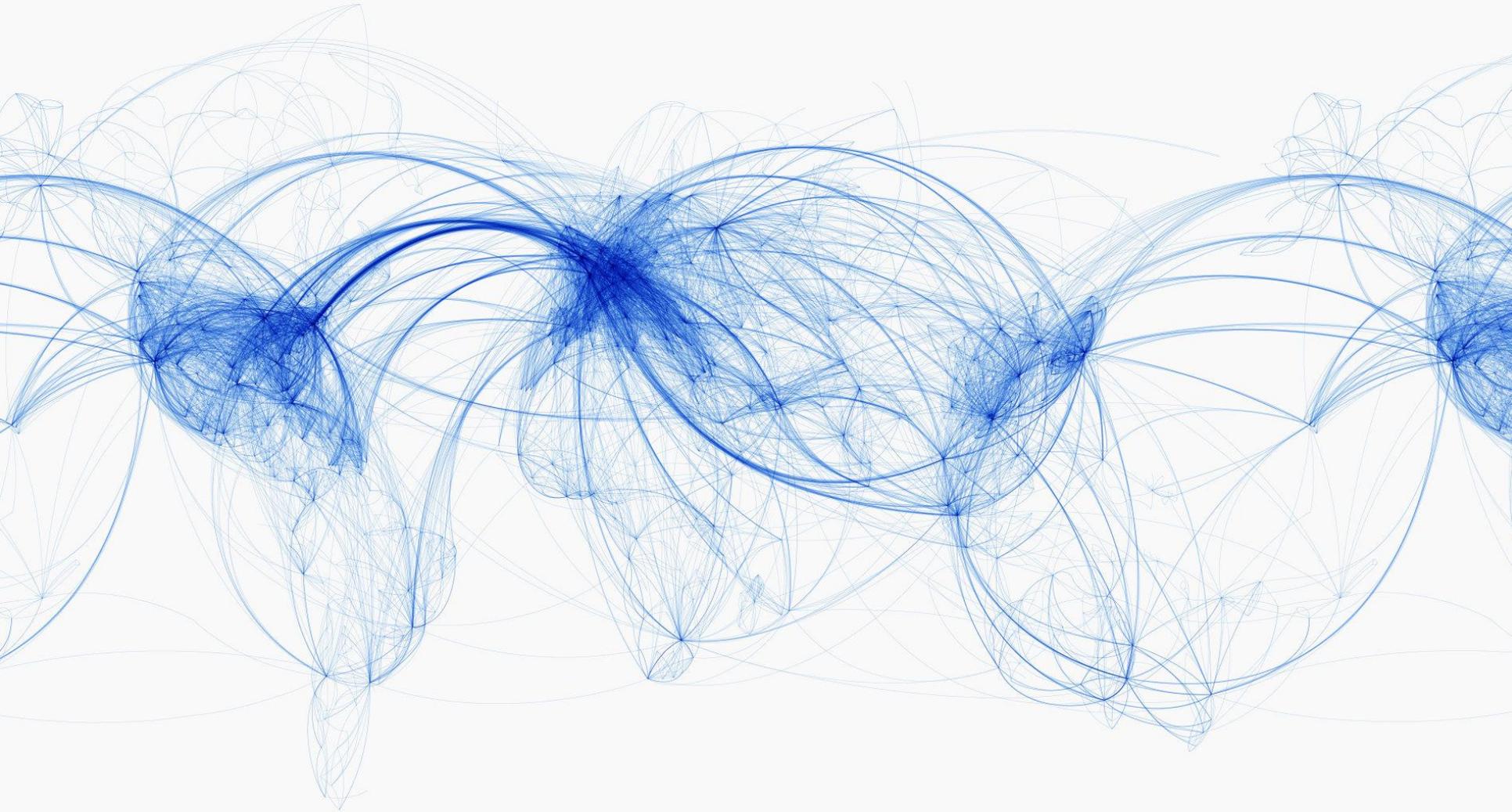
Old Portuguese trade routes



Current shipping routes



Air Routes



the traffic density portrayed is based on the number of airlines on a particular route, not the number of actual flights

China Belt and Road Initiative (BRI) will create new routes

China's Proposed New Silk Roads



To cap it all

Planned areas of infrastructure building

Ice Silk Road?



From where does the population come from?

Hinterland population?

1. Walvis Bay (Namibia)
2. Suining EDZ (China)

Migration model :

3. Dubai, Singapore
4. Shanghai 1920?
5. Shenzhen 1984?

Walvis Bay EPZ assembling cars for Mercedes, Opel and Peugeot (2018)



Walvis Bay EPZ

1. Assets

- Independent municipal jurisdiction
- No land constraints
- Well equipped and run deep sea port (former South African Navy base)
- Existing social facilities, including international school (English and German)
- Large possible labor pool from Namibia and South Africa
- Wonderful climate, environment and scenery

2. Required investments

- Heavy investment required to expand port facility
- Desalination plant to provide enough water for expanding population
- Housing development for workers
- Schools and social facilities

Walvis Bay (Namibia)



Walvis Bay Export Processing Zone

an innovative approach to offshore investments



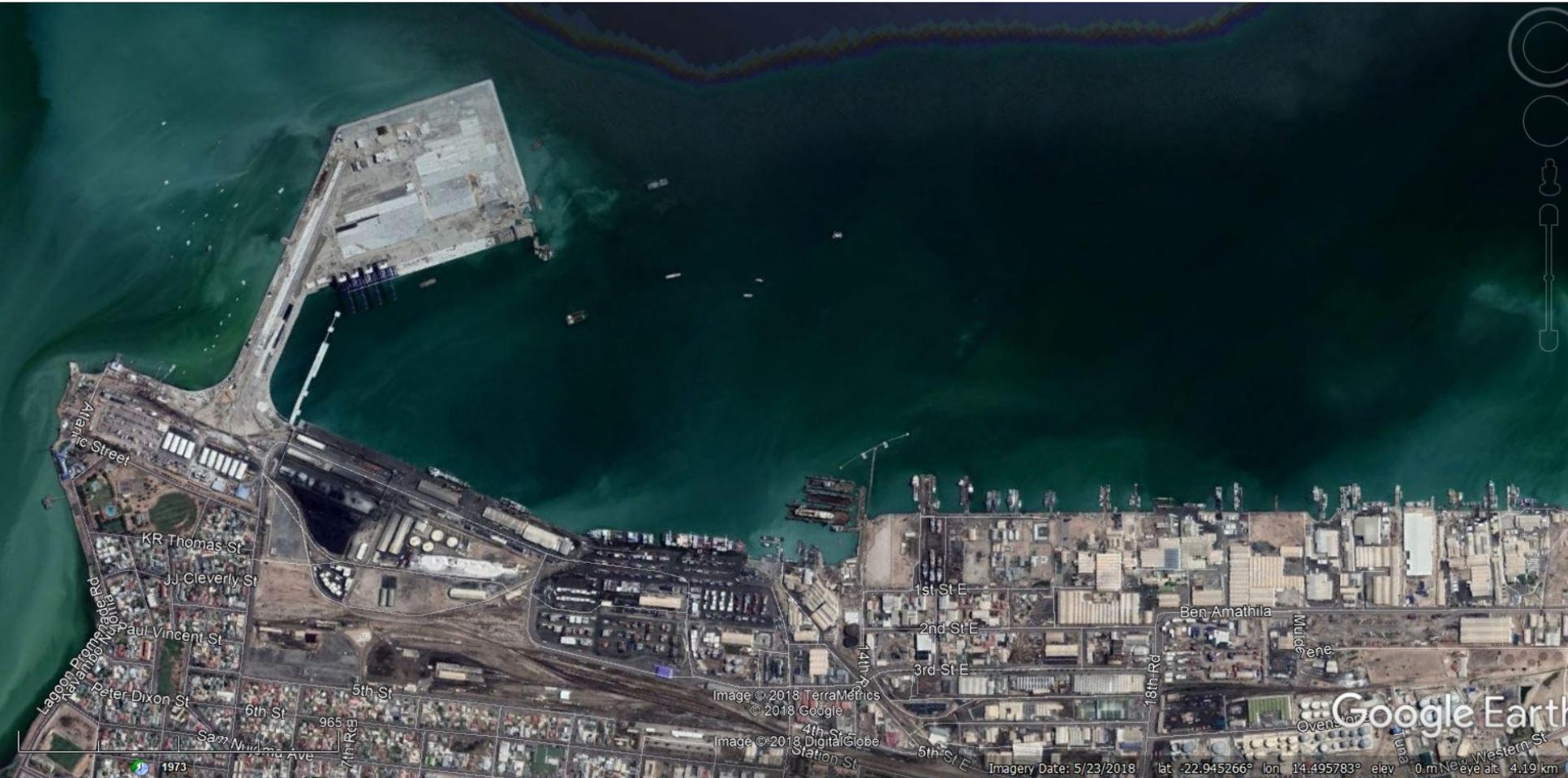
Walvis Bay = 62,000 people
Swakopmund = 44,000 "
Windhoek = 300,000 "

© 2018 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat / Copernicus

Google Earth

lat -23.216636° lon 14.785129° elev 0 m eye alt 26.27 km

Walvis Bay port expansion



Housing



Embryonic growth

- Reaching critical size for economic viability
- Cash flows

Reaching critical size

Costly Unscalable Infrastructure:

- 1) Airport
- 2) Deep port
- 3) Sewer plant
- 4) Water supply system
- 5) Main roads
- 6) Major administrative and social facilities

Scalable infrastructure

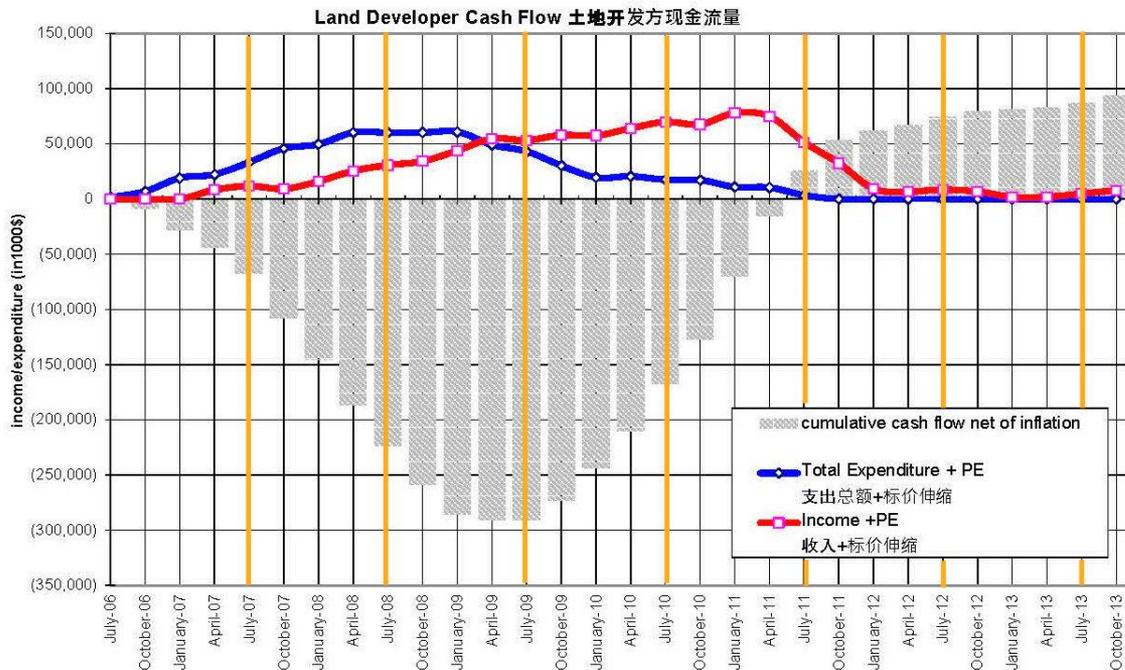
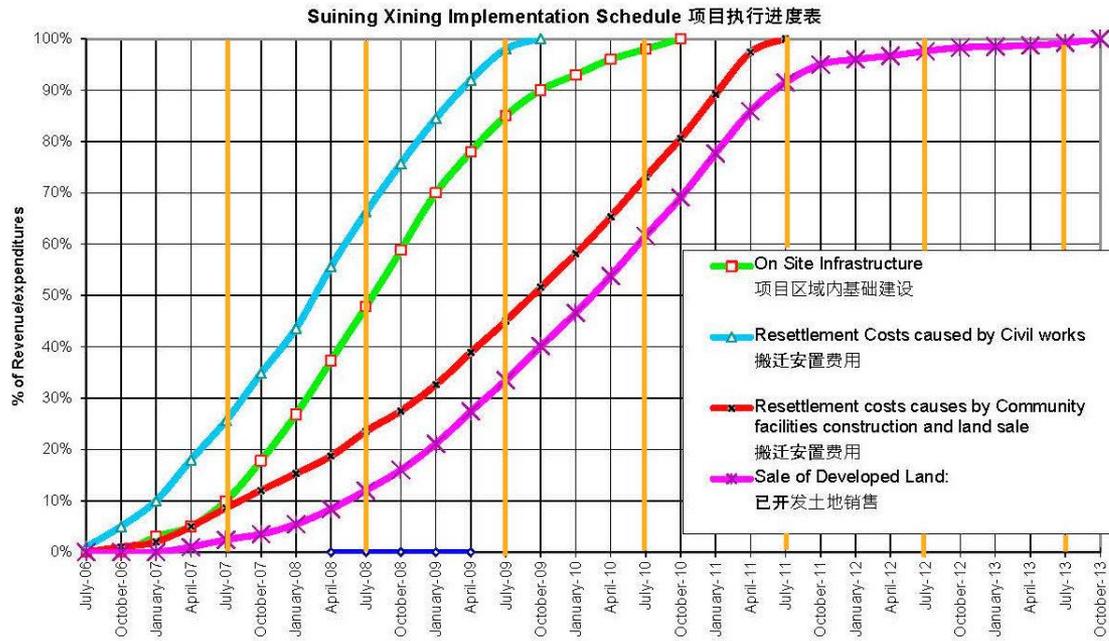
- 1) Local roads
- 2) Social facilities
- 3) Workers housing

Infrastructure requirements and the rate of growth of the labor force determine cash flows

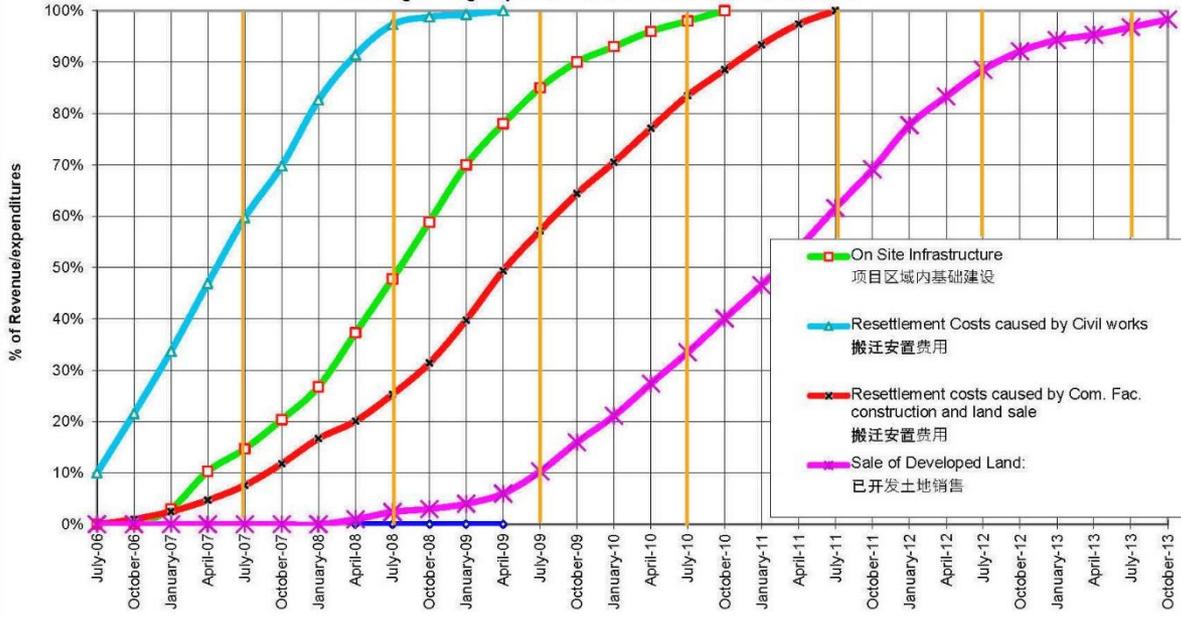
Long negative cash flows could discourage investors and result in the death of a new city at its embryonic stage

Suining-Xining EDZ

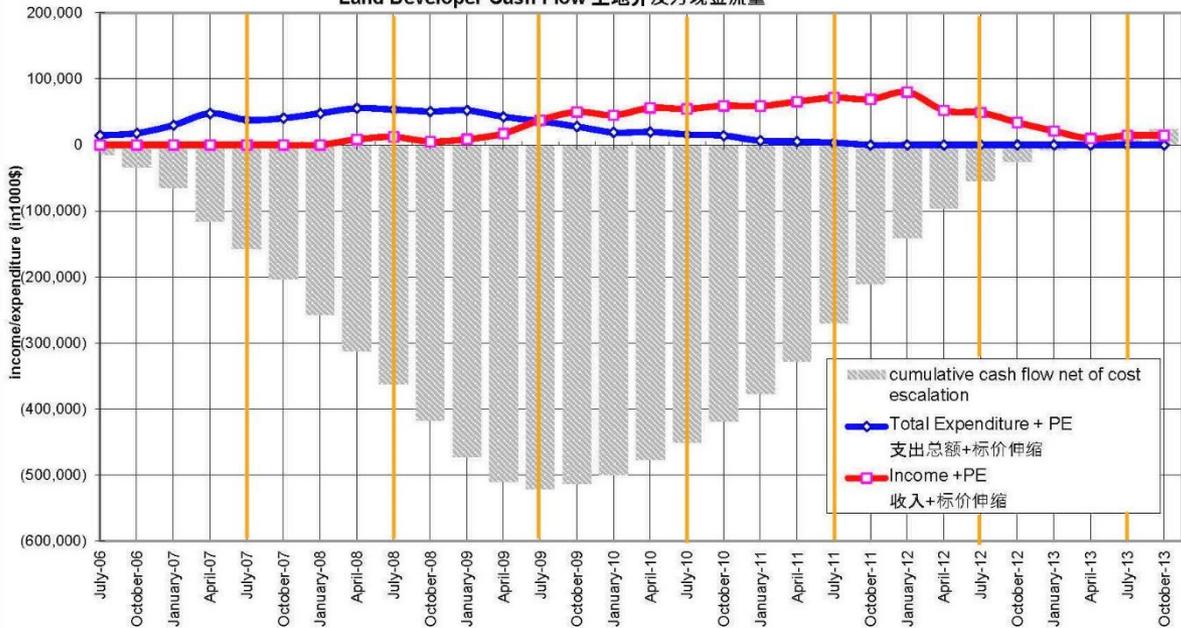
The Financial rate of return at appraisal: 9.91%



Suining Xining Implementation Schedule 项目执行进度表



Land Developer Cash Flow 土地开发方现金流量



Suining-Xining EDZ

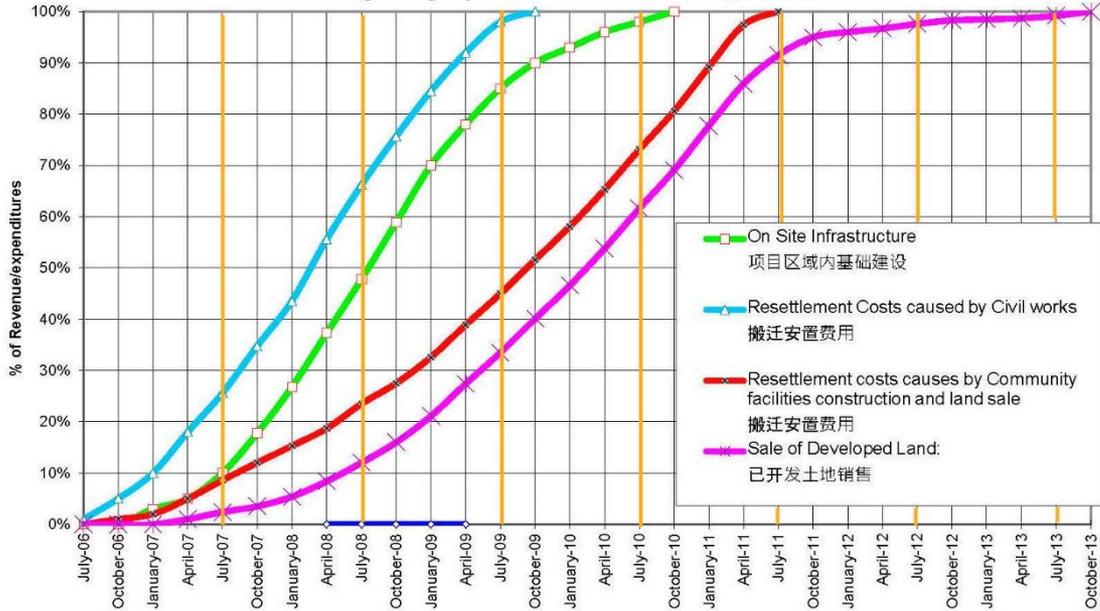
The Financial rate of return after a one year delay in selling land: 1.25%

Change in project phasing

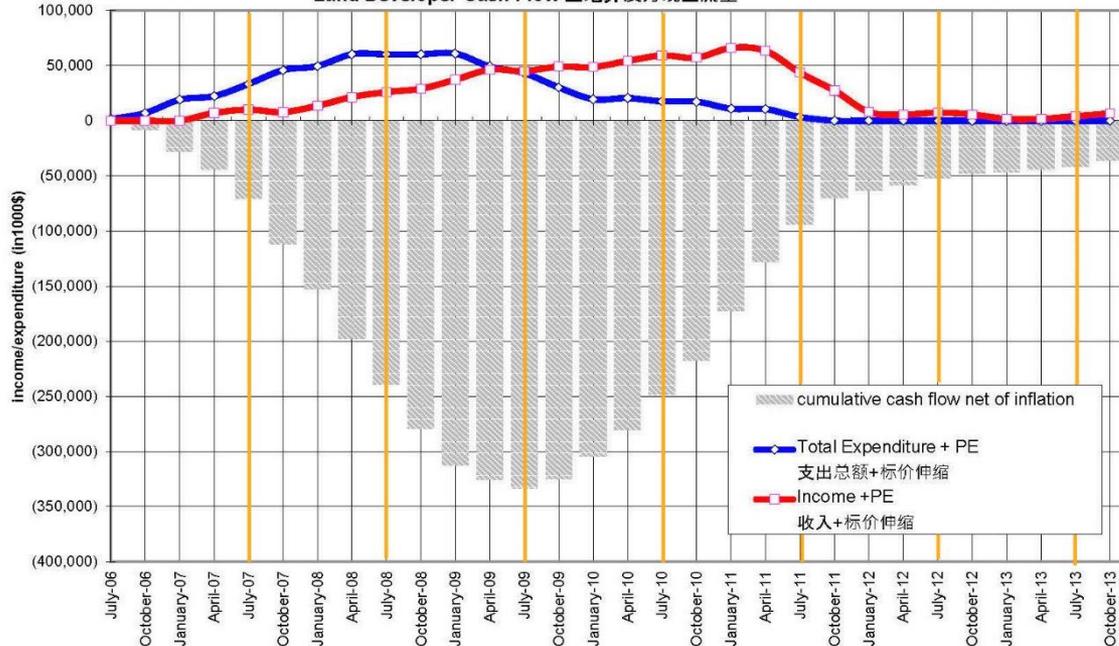
Financial rate of return

1.25%

Suining Xining Implementation Schedule 项目执行进度表



Land Developer Cash Flow 土地开发方现金流量



Suining-Xining EDZ

The Financial rate of return if land sale price has been overestimated by 20%: -3,85%

The viability of newly created cities depends on 3 factors

- Location
- Migration policy
- The time required to reach positive Financial Cashflow