Energy Planning and Economic impacts

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Department:
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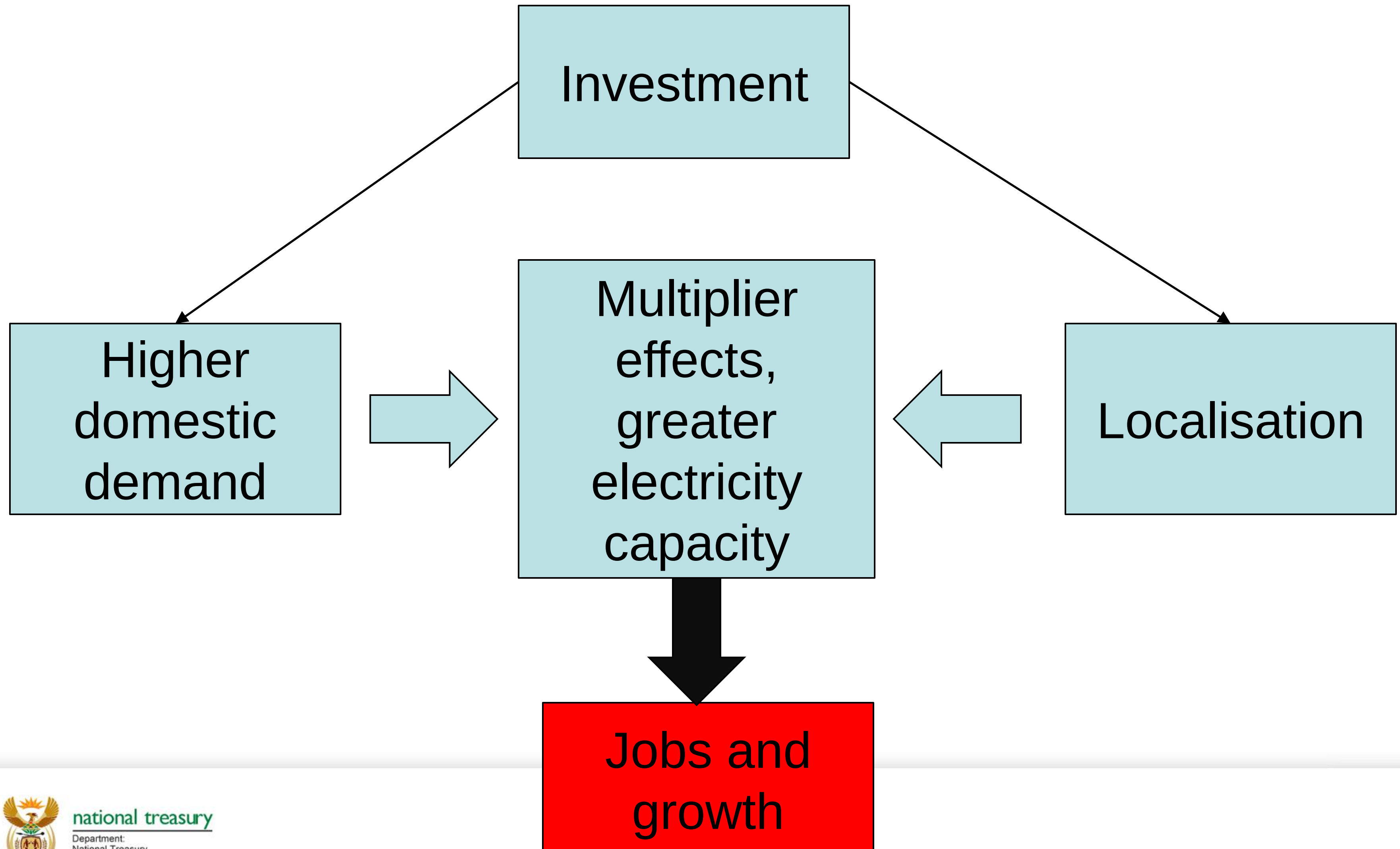
Key messages

- The general understanding of the impacts of energy build programmes on the economy is that the larger the investment, the more positive the impact
- However, least costs (including the cost of exterenalities) programmes generate the most beneficial effects as:
  - electricity prices follow are lower trajectory,
  - crowding out effects of other sectors are smaller, particularly in a capital constraint economy such as South Africa
  - Slower pace of debt accumulation

It seems the general understanding is....



But this is only a small part of the story

- In every economy

Household savings +government savings+ savings by companies + foreign savings = total investment + changes in inventories

- In South Africa

Household savings +government savings+ savings by companies < total investment + changes in inventories

- Reliance on foreign savings

Increase in foreign debt and external vulnerabilities

- A large foreign currency liability can spark a financial crisis in the presence of a large exchange rate depreciation- sudden stop dynamics

Why is this a problem

How do we fund the expenditure then?

- Reduce other investment i.e crowd out effect, which works though interest rates
- Increase domestic savings, which means that in the short-run:
  - Government must consume less – is this possible?
  - Households must consume less- how would this affect aggregate demand?
  - Other firms must save more and invest less- crowding out again? What will happen to demand for electricity?
- But what is happening to asset prices and balance sheets?
- Increase prices, but price increases have negative effects on the economy
  - Absolute price effects reduce the purchasing power of everyone and reduce the competitiveness of the South African economy relative to other economies. May lead to improved electricity intensity.
  - Relative price effects- reduce the relative returns of those industries that are electricity intensive
  - Threshold effects lead to industries closing down or switching to their own sources of electricity- what is the impact of this on electricity demand

What if government does the funding?

- Government has two ways to do this:
  - Cut other government expenditure to fund electricity expenditure- what should we cut?
  - Raise taxes, but increasing taxes has generally negative effects and at some point Laffe curves come into play-> higher taxes lead to lower tax revenues.

Localisation will offset any negative effects

- It depends:
  - Is the localised product more expensive and does it increase the costs of doing business
  - do we have enough resources i.e engineers, technicians, etc, otherwise we will be bidding the cost of resources and putting other companies out of business

Understand the broader effects

- No expansion of electricity supply is not an option. Insufficient capacity has a very negative effect on the economy

- However, we need to bear in mind that some options can have a very negative effects on the economy by crowding out private investment, leading to very large increases in prices or taxes or increasing the external vulnerability of the economy.

- These options offset the positive effects

- Understanding the impacts on the economy is critical as this will also indicate whether we are likely to overinvest, which has implications for pricing and sustainability of electricity producing companies.