Understanding the Impact of COVID-19: New Data Sources, New Insights

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ASEAN
AUSTRALIA
SMART CITIES
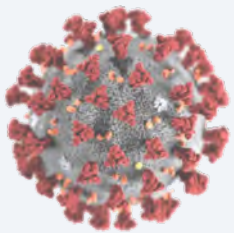TRUST FUND
Asian Development Bank

Data Solutions

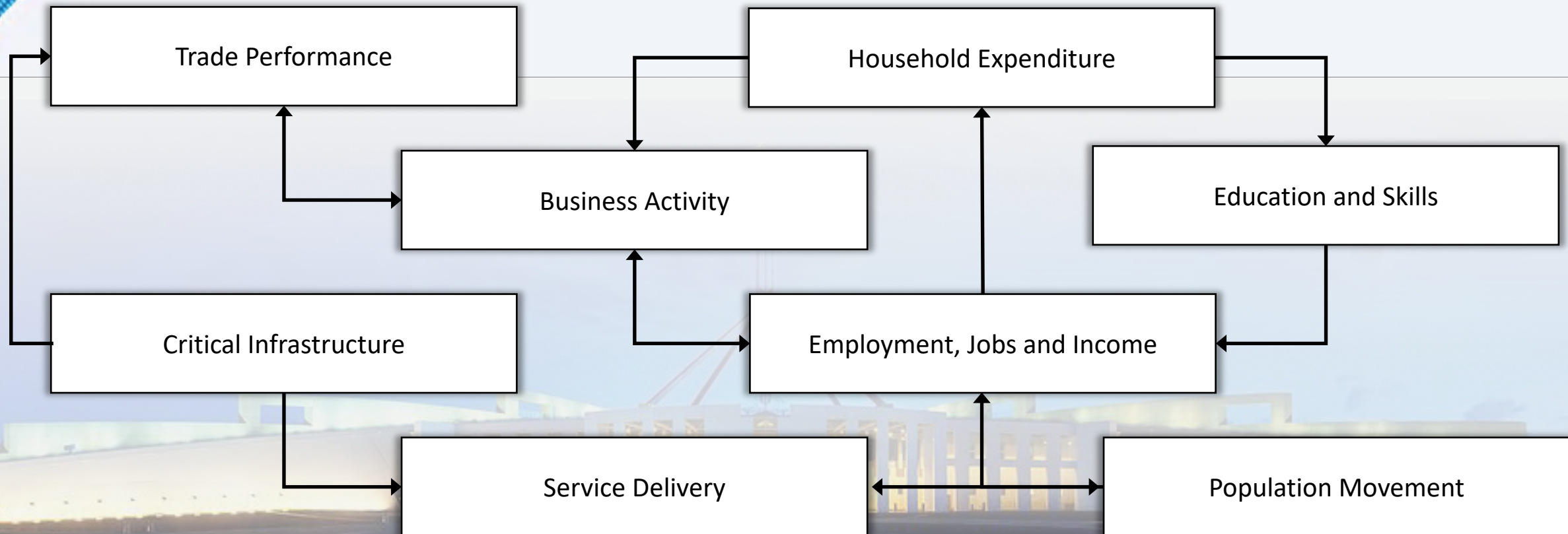Leveraging the information content of new data sources

To provide insights about the impact of COVID-19

And building 'big data' capability for statistical production

- Acquisition

- Integration

- Analysis

Policy problems

Big data sources

- Merchandise trade transactions from Customs systems
- Retail transactions from retail point-of-sale (POS) scanners
- Payroll data from the Single Touch Payroll (STP) system
- Financial transactions from banking and accounting systems
- Smart meter measurements from energy retailers
- Spatial positioning data from applications on mobile devices
- Spatial positioning data from vehicle telematics systems
- Internet infrastructure and service usage data from ISPs
- Land coverage and utilisation data from satellite imagery
- Job advertisements from online employment portals

A new analytical paradigm

A System-Centric Perspective
- Join up interrelated concept and data spaces
- Connect individuals and groups in multiple ways

Computable Semantics
- 'Meaning' of concepts is machine-interpretable
- Consistent interpretation across disparate sources
- Automated processing and discovery through AI

Dynamically Integrated Data
- Heterogeneous and multisource
- Structured and unstructured
- Cross-sectional and longitudinal linkages

Adaptive Analytical Pathways
- Exploration (pattern sensing)
- Explanation (model building)
- Extrapolation (system simulation)

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