

METHODOLOGY OF SERVICES TRADE BAROMETER

Introduction

This document outlines the methodology used to produce the Services Trade Barometer, a composite indicator of world services trade and companion to the WTO's Goods Trade Barometer. The overall Services Trade Barometer index is calculated as a weighted average of six component indices representing various aspects of world services trade, including purchasing managers' indices, financial services transactions, telecommunication services production, air passenger transport, container port throughput and construction activity. Data releases also include a services trade activity index, which provides an approximate measure of the volume of world commercial services trade and serves as a point of comparison to the Services Trade Barometer.

The Services Trade Barometer is a coincident indicator, with fluctuations that coincide with (rather than anticipate) shifts in actual services activity, but it can be seen as slightly leading since it will usually be released ahead of conventional services trade statistics. As such, the Services Trade Barometer provides a composite indicator that tracks changes in the volume of world services trade. Component indices may represent developments in a particular sector (e.g. transport) or they may signal global trends (e.g. purchasing managers' indices). Where underlying data in component indices are reported earlier than services trade statistics, data may be

- x An index of revenue passenger kilometres (RPK) from the International Air Transport Association (IATA), used as a proxy for travel expenditure.
- x An index of container throughput of major international ports from the Institute of Shipping Economics and Logistics (ISL).
- x An index of construction activity based on national statistics from China, France, Germany, Japan and the United States .

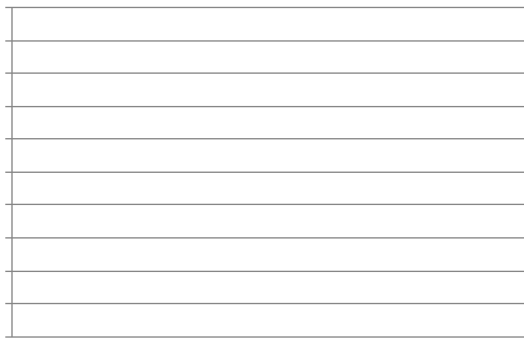
#### Methodology

Chart 1

Example of smoothing and de-trending using Singapore port throughput in TEU

Panel A

Panel B



Panel C

Panel D

Source: Singapore port authority.

Methodology for the services trade activity index

The WTO compiles statistics on commercial services trade by sector in current US dollar terms, which are published on a quarterly basis. These data reflect changes in US dollar exchange rates and price inflation as well as quantity changes. The services trade activity index approximates world services trade volume by deflating world services trade values in US dollar terms by an exchange rate index for the US dollar and core consumer price inflation for the United States.

The first step is data compilation. The trade in commercial services is represented by the average of world exports and imports of commercial services. The deflators are the United States core CPI (all items less food and energy) and the broad nominal effective exchange rate (NEER) for the United States. The trade in commercial services data is in quarterly terms, while the core CPI and NEER data are converted to quarterly averages from monthly data.

Data	Unit	Source
Imports and exports of commercial services	Million US dollar	WTO
United States Consumer Price Index for All Urban Consumers: All Items Less Food and Energy (Core CPI)	Base period 1982 - 1984=100	Federal Reserve Bank of St. Louis
United State Nominal Effective Exchange Rate: Broad indices	Base period 2010 = 100	Bank of International Settlement



## Data sources

Underlying data for the Services Trade Barometer and its component indices is obtained from a variety of sources . All the data used are reported on a monthly basis.

Sector	Indicator	Unit	Source
Commercial services	Headline Purchasing Managers Index (PMI) – services	Number from 0 to 100/ 50 means no change	IHS - Markit
Financial Services	SWIFTNet FIN traffic	Average daily FIN messages	SWIFT
ICT Services	Index of services production for telecommunication sector		