

Overview of APEC energy situation

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Outline of presentation

APEC and the world

APEC demand and supply

- TPES by fuel
- TFC by sector
- TFEC by fuel

Energy efficiency template

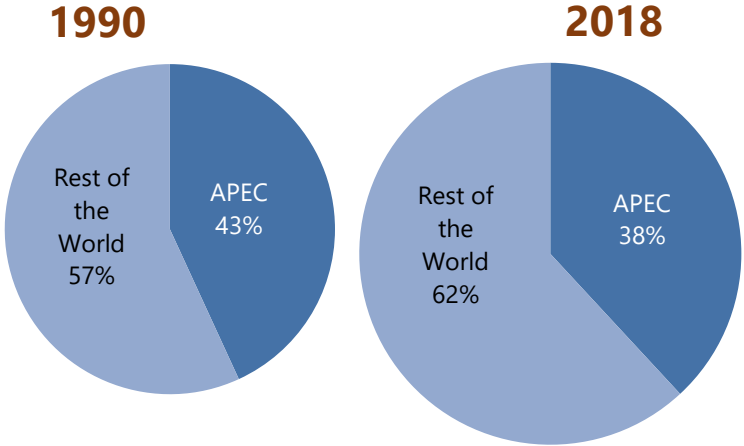
- Status
- Analysis



1. APEC and rest of the world

Economic indicator

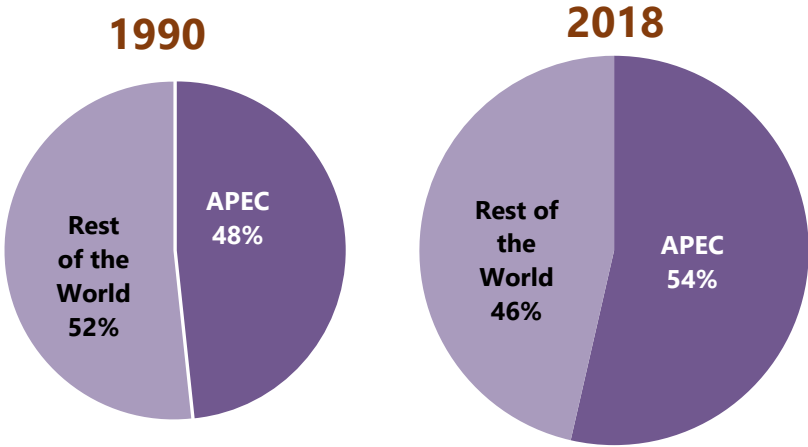
Population



- APEC Population reach 2,902 million in 2018; CAGR (1990-2018) maintained at 0.9%;
- Growth from 2017 to 2018 was at 0.6%;
- APEC share in the world's population was 38% in 2018; five percentage point lower than 1990; decreasing from 43% in 1990.

- GDP PPP (constant 2017 USD) surged faster at 3.7% CAGR compared to the rest of the world at 2.9% CAGR over the period 1990 to 2018;
- 4.1% increase in GDP PPP (constant 2017 USD) from 2017 to 2018 compared to the rest world's 3.0%;
- Share from world's GDP increased from 48% in 1990 to 54% in 2018.

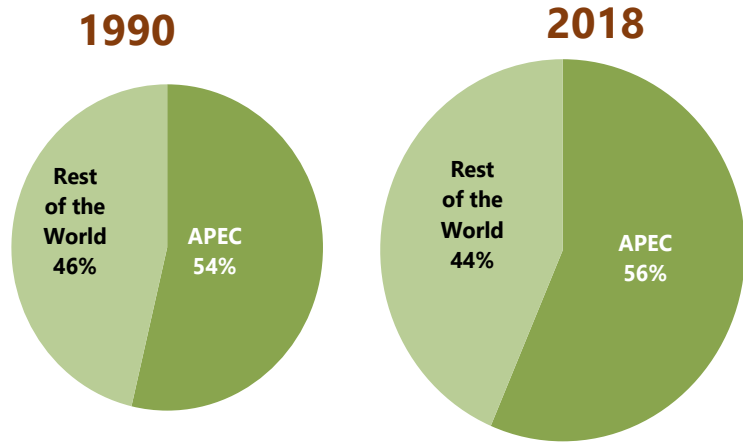
World GDP, PPP (constant 2017 USD)



Sources : World Bank; DGBAS (CT data)

TPES and Relative shares

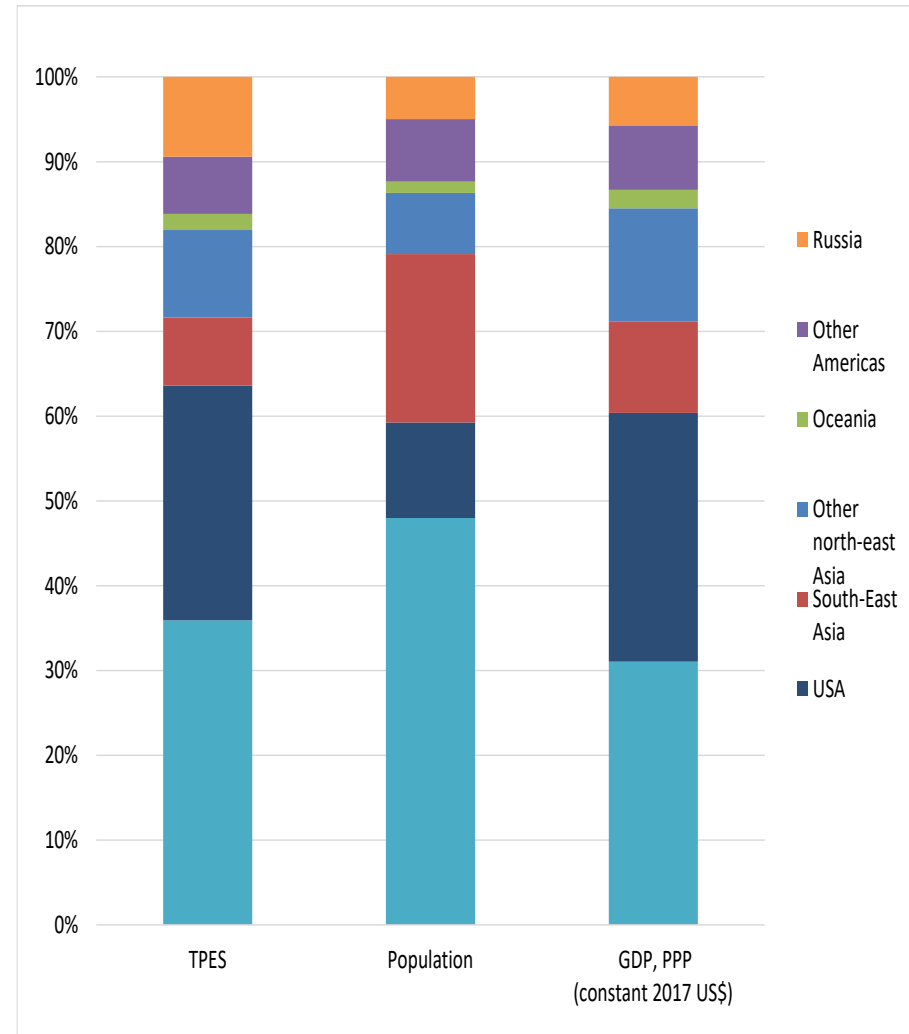
Total primary energy supply



- ❑ APEC accounted for 56% of the world's TPES in 2018 an increase from 54% in 1990;
- ❑ the CAGR of TPES was 1.9% between 1990 and 2018
- ❑ the top regions in terms of **TPES** in APEC in 2018 were, **China** (20%); the **US** (16%) and other **north-east Asia** (6%);
- ❑ in terms of **GDP PPP**, **China** (31%) outstripped **US** (29%) by one percentage point in the no.1 slot in 2018

Note: China's energy data was estimated, based on preliminary information: monthly/quarterly

Relative shares (2018)

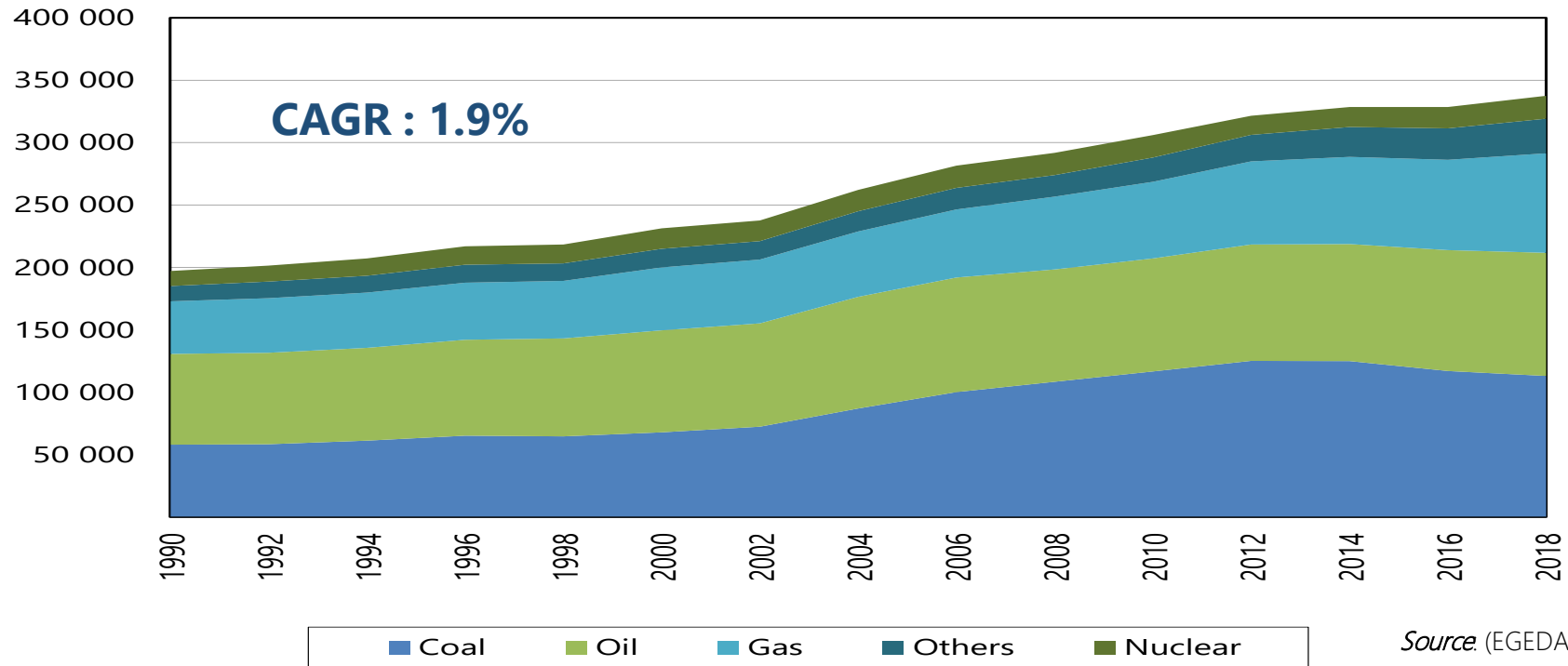




2. APEC demand and supply

Total primary energy supply (TPES)

TPES by type of fuel, 1990-2018 (PJ)



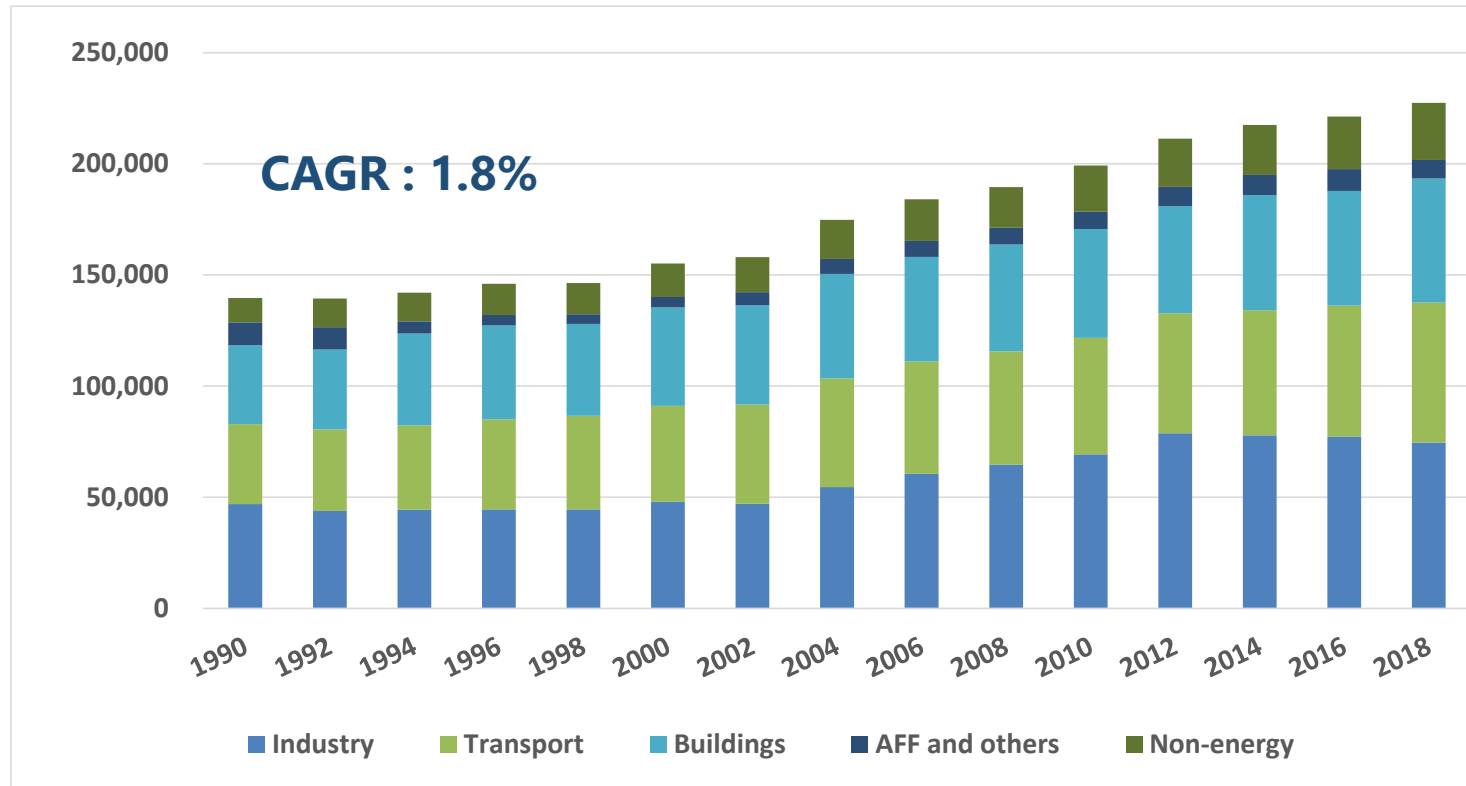
Source: (EGEDA, ESTO analysis)

- ❑ *TPES grew 1.0% to 337,539 PJ in 2018 ; SEA drove the increase*
- ❑ *Coal was still the largest (34%) but decreased 3.9% from 2017;*
- ❑ *Gas grew the biggest (7.4%).*

Note: China's energy data was estimated, based on preliminary information: monthly/quarterly

Total final consumption (TFC)

TFC by sector (PJ), 1990-2018



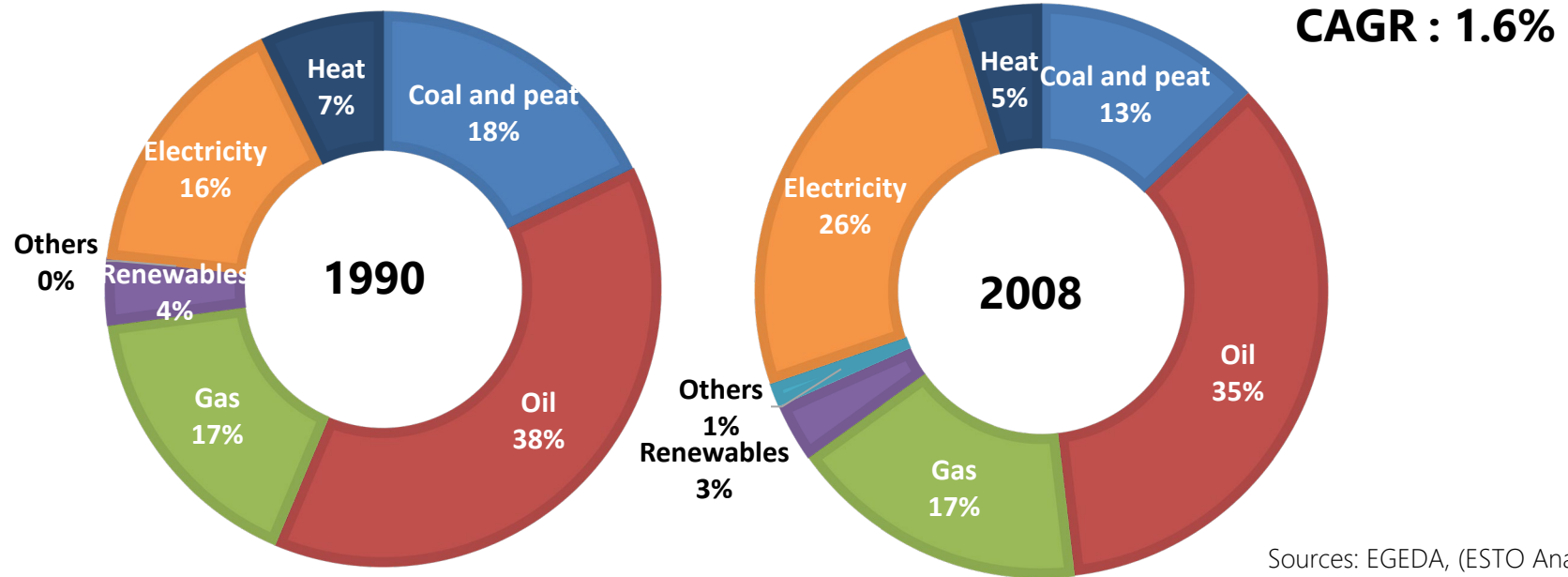
Sources: EGEDA, (ESTO analysis),

- ❑ *TFC (including non-energy) grew 2.1% to 227,432 PJ in 2018;*
- ❑ *Industry continued to be the leading consuming sector (37%) but dropped 0.7%;*
- ❑ *Non-energy grew 4.4%.*

Note: China's energy data was estimated, based on preliminary information: monthly/quarterly

Total final energy consumption (TFEC)

TFEC by fuel (PJ), 1990-2018



- ❑ TFEC reached 201,796 PJ (1.8%) in 2018;
- ❑ Oil continued to dominate fuel use (35%) but declined 0.5%;
- ❑ SEA drove the increase of TFEC in 2018 (6.4%).



3. Energy indicators template

Status

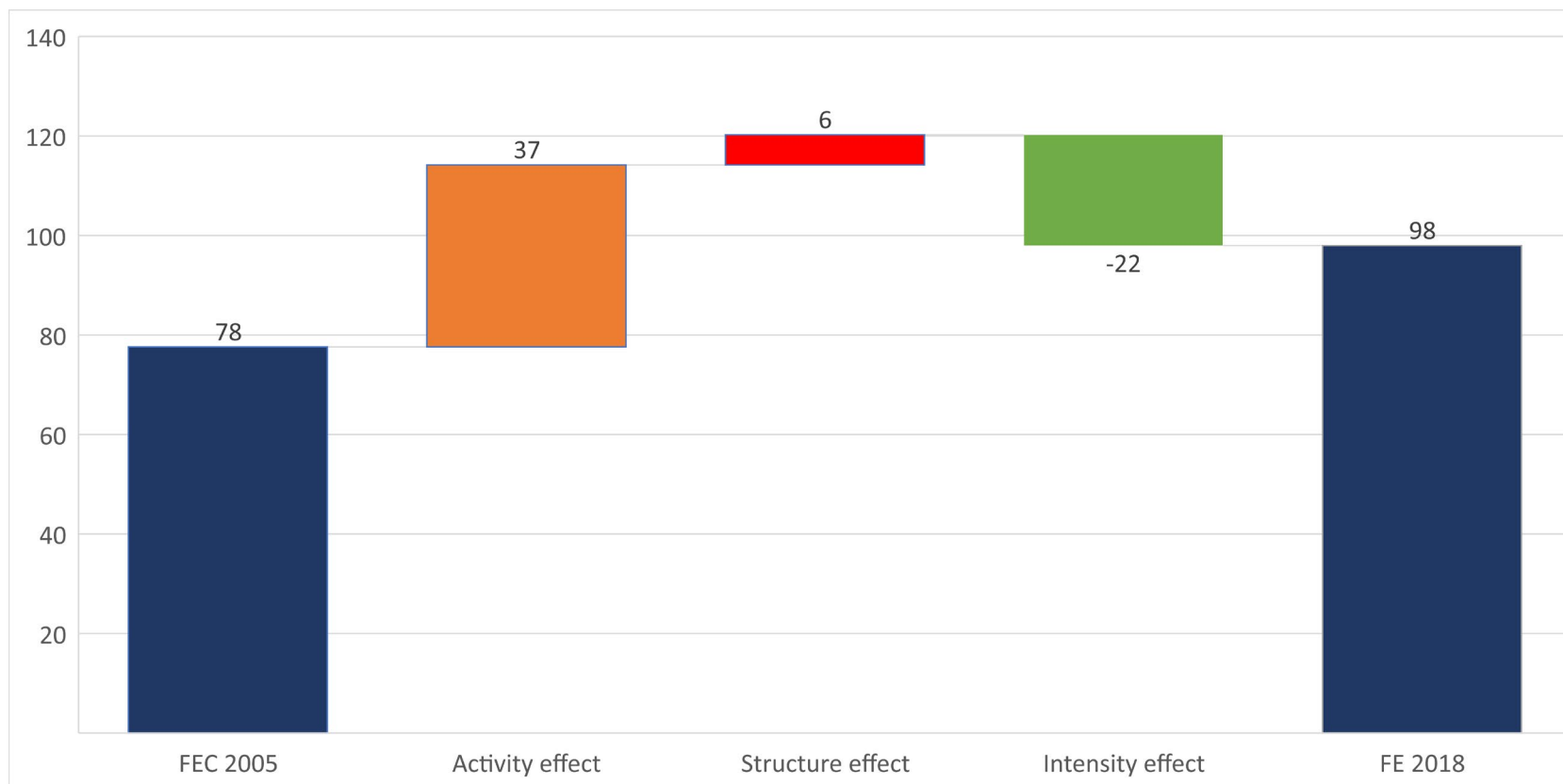
Submissions

Collection date	No of submissions
2018 (for 2016 data)	8 including 2 OECD EE templates
2019-20 (for 2017 data)	9 including 5 OECD EE templates
2020 (2018 data)	2 submissions thru EGEDA website

- ❑ *Increase in OECD EE templates submissions, request from IEA and its members;*
- ❑ *We would like to request both non-OECD and OECD to please continue submissions; frequency is the same as annual data submission.*

Analysis

Decomposition : Final energy consumption(PJ), 2005-18



- ❑ *Energy efficiency or intensity effect played a significant role in offsetting the increases in final energy consumption brought about by the rapid growth (activity) of the APEC region*

Closing thoughts: better data = better analysis

- Decomposition method allows us to separate structural shifts or activity shifts, understanding better true trends in energy consumption as well as trends in economic activity that influence energy consumption in APEC.
- However, more useful analysis requires more detailed data. Decomposition of aggregate intensity is already a challenge (agriculture, in particular)
- Transport (passenger-km travel and number of vehicles)--initially tried with three OECD APEC economies--and residential (floor area and weather effect) will be challenging.



Thank you for your kind attention

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