



Removing Environmentally Harmful Subsidies: an exploration of the issues

Ronald Steenblik, Special Counsellor,
Fossil-Fuel Subsidy Reform, OECD

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WHY ARE ENVIRONMENTALLY HARMFUL SUBSIDIES (EHS) OF CONCERN?

» Subsidies to activities with significant environmental footprints are large, and costly

- **Fossil fuel production and consumption:** at least **USD 400 billion** per annum, globally. (Varies significantly, in line with int. energy prices.)
- **Water use and treatment:** around **USD 450 billion** globally in 2012, according to the IMF.
- **Agricultural production:** around **USD 100 billion** in support considered potentially environmentally harmful provided by OECD countries in 2015.
- **Fisheries:** estimates vary, from almost **USD 7 billion** a year for the OECD to USD 35 billion (including fuel subsidies) a year globally.
- **Others:** subsidies that favour the extraction of primary (non-energy) minerals and metals production, and for activities that indirectly lead to increased pressure on the environment (e.g., tax policies that encourage the provision of company cars and fuel credit cards in lieu of cash).



Potential environmental problems that are exacerbated by subsidies are many

- **Fossil fuel production and consumption:**
 - *Production:* land degradation (coal and petroleum), spills (petroleum), methane emissions (natural gas, deep-mined coal)
 - *Consumption:* CO₂ emissions, sulphur and particulate emissions.
- **Water use and treatment:** over-use (depleting aquifers, reducing flows in some rivers); encourages investment in unsustainable uses.
- **Agricultural production and aquaculture:** habitat destruction, land degradation, nutrient pollution.
- **Marine capture fisheries:** over-fishing and associated externalities from fishing; damaging practices that are facilitated by low-cost fuel.
- **Non-energy minerals and metals production:** land degradation, water pollution; discouragement of re-use and recycling.



WHY ADDRESS EHS NOW?

» There are already various calls for action on EHS

- ❖ **2009:** In June, OECD Council Ministers call for “avoiding or removing **environmentally harmful** policies that might thwart green growth, such as **subsidies** ... which contribute to negative environmental outcomes”.
- ❖ **2009:** In, respectively, September and November, G20 Leaders and APEC leaders call on their members “to phase out and rationalize over the medium-term inefficient **fossil-fuel subsidies** that encourage wasteful consumption.”
- ❖ **2010:** The Convention on Biological Diversity adopts a Strategic Plan for 2011-20 that foresees “by 2020, at the latest, incentives, including **subsidies, harmful to biodiversity** are eliminated, phased out, or reformed”
- ❖ **2015:** The U.N. Sustainable Development Goals (SDGs) include targets relating to the **agricultural export subsidies** (2.b), **fossil fuel subsidies** (12.C), and certain forms of fisheries subsidies that contribute to **overcapacity and overfishing** (14.6).
- ❖ **2016:** G7 Leaders commit to “the elimination of inefficient **fossil fuel subsidies**” by 2025.

» In fact, international calls for reducing or eliminating EHS go back many years – here’s a selection of them:

- ❖ **Late 1980s and early 1990s:** Studies by UNDP, World Bank and the World Resources Institute point to hundreds of billions of U.S. dollars supporting the consumption of **fossil fuels**.
- ❖ **Early 1990s:** FAO analysts find marine capture **fishing** subsidised at levels approaching USD 50 billion a year.
- ❖ **1994:** G7 Environment Ministers call for a reduction in **environmentally damaging subsidies**.
- ❖ **Late 1990s:** OECD undertakes a major study on **EHS**.
- ❖ **2001:** OECD Council Ministers call for reducing **EHS**.
- ❖ **2001:** WTO calls for new language on subsidy disciplines for fish products.



**WHAT DO WE KNOW ... AND
WHAT DO WE NEED TO KNOW
ABOUT THE SIZE AND NATURE
OF POTENTIALLY
ENVIRONMENTALLY HARMFUL
SUBSIDIES?**

» Necessary steps to reforming EHS

- Admitting that certain subsidies might be causing problems.
- **Having good information on the size and nature of the subsidies.**
- **Understanding the effects of subsidies, and their reform, on economic, social, and environmental indicators.**
- Learning from the lessons of past examples of reform.
- Developing realistic reform plans that address the needs of the poorest.
- Leveraging international collective action to lend legitimacy to domestic action.
- Helping others who suffer from the similar problems and political challenges.

Questions

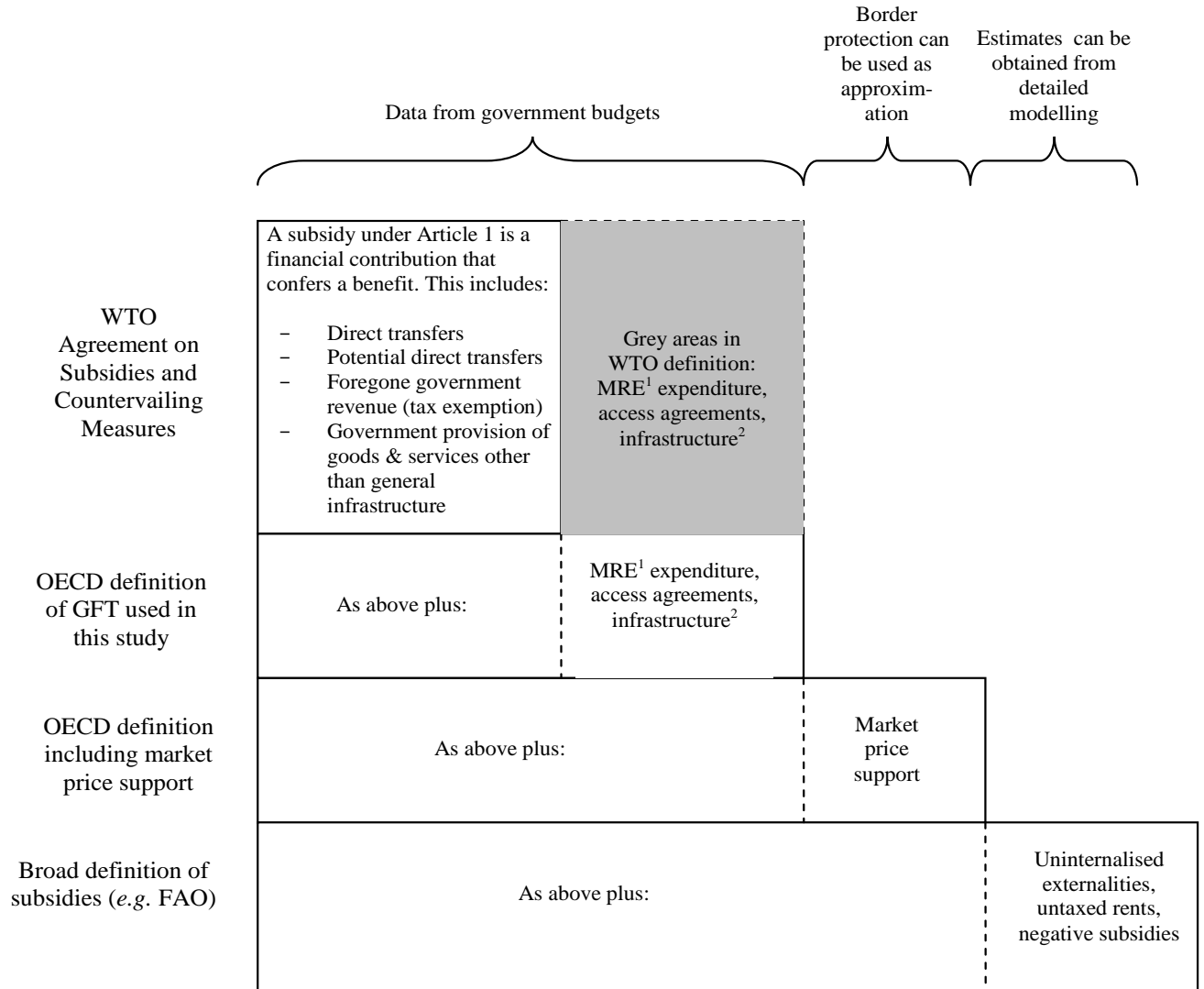
- ✓ Are different definitions of “subsidy” being used for different sectors?
- ✓ How extensive (countries, policies) and detailed is the information on subsidies to each sector?
- ✓ If estimates have to be obtained from different sources, are they comparable?
- ✓ Are there major gaps?
- ✓ Can the subsidy information be used in a way that correlates easily with environmental effects?
- ✓ What kind of quantitative analysis has been done to date of the effects of subsidies (or their reform), and what do the results show?
- ✓ Can one take this information and translate it into concrete targets, or at least good-practice guidelines?

» Are sectoral estimates using the same definitions?

Concerning “subsidy”:

- Several institutions use a definition that is consistent with the WTO definition in the ASCM, which requires that there be a financial contribution by a government that confers a benefit and (a) involves (i) a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees); (ii) foregone government revenue (e.g. tax credits); (iii) government-provided goods or services other than general infrastructure; or (b) income or price support (in the sense of Article XVI of GATT 1994).
- However, the WTO definition does not cover price support conferred to producers by import tariffs. OECD estimates measure those for agriculture.
- The IMF definition of “post-tax subsidies”, and one FAO definition of fish subsidies, includes estimates of non-internalised externalities.

An example from fisheries



What about notifications to the WTO?

- WTO members (+160) at last count are required to notify subsidies with a potential to affect trade on a regular basis.
- Enforcement of this requirement is weak, however. The result is laxity.
- As of October 2016, for example:
 - 89 members had not notified their fisheries subsidies for 2015
 - 63 members had not notified their fisheries subsidies for 2013
 - 57 members had not notified their fisheries subsidies for 2011
- In total, some 700 notifications were overdue.
- Many of these members “either have never notified or have done so only in the distant past”, according to the Chair of the Committee on SCM.

Fisheries and aquaculture



- Estimates of government support for fisheries first began to be collected in a systematic, internationally comparable way in the late 1990s, by the OECD.
- The OECD data now cover 27 individual member economies, plus 4 non-member economies. (The OECD is in the process of expanding this coverage.) Estimates for other countries have been prepared by academic researchers.
- The system of classification used to compile the OECD's Fisheries Support Estimate (FSE) developed to evaluate potential effects on fishing capacity and effort, but best when combined with information on fishing regulations.
- However, information is available only for the sector as a whole, not by fishery; and market price support (MPS) is not estimated.
- **Bottom line:** Long time series, consistent, detailed policy information covering mainly OECD countries, and at a sectoral level, but not by fishery, and excluding MPS.

Fossil fuels and electricity generated by fossil fuels



- Estimates of government support for some fossil fuel subsidies, for some fossil fuels (or electricity), and for some countries, date back to the 1980s.
- Several inter-governmental organisations are now providing estimates of government support to FF production (OECD) or consumption (IDB & WB, IEA, IMF, OECD).
Note: the approach used by the IEA picks up no support provided by G7 countries.
- The consumption-subsidy information, being based on price gaps, can be used directly to model effects on consumption and hence on CO₂ emissions.
- The system of classification used to compile the OECD's support estimates has been developed along two dimensions: economic incidence and form. These distinctions can help in distinguishing between support related to current consumption and that related to productive capital.
- **Bottom line:** Decade-long time series of consumer (price-gap) subsidies, but detailed information on policies covers mainly OECD and BRIICS, and credit-related subsidies need still to be estimated.

Agriculture



- Estimates of government support for agriculture first began to be collected in a systematic, internationally comparable way in the mid-1980s, by the OECD.
- The OECD data now cover all 35 OECD member economies (but the EU as a whole), plus 15 of the world's leading (non-OECD) agricultural producers.
- The system of classification used to compile the OECD's Producer Support Estimates (PSE) and Consumer Support Estimate (CSE) were originally developed to facilitate potential trade impacts, but can also be used to give a rough idea of the *potential* environmental impact of the measures.
- Countries also submit estimates of certain kinds of domestic support to agriculture to the WTO – more countries, but smaller programme coverage.
- **Bottom line:** Long time series, consistent, detailed policy information covering a large number of countries (but not the world).



Important caveats!

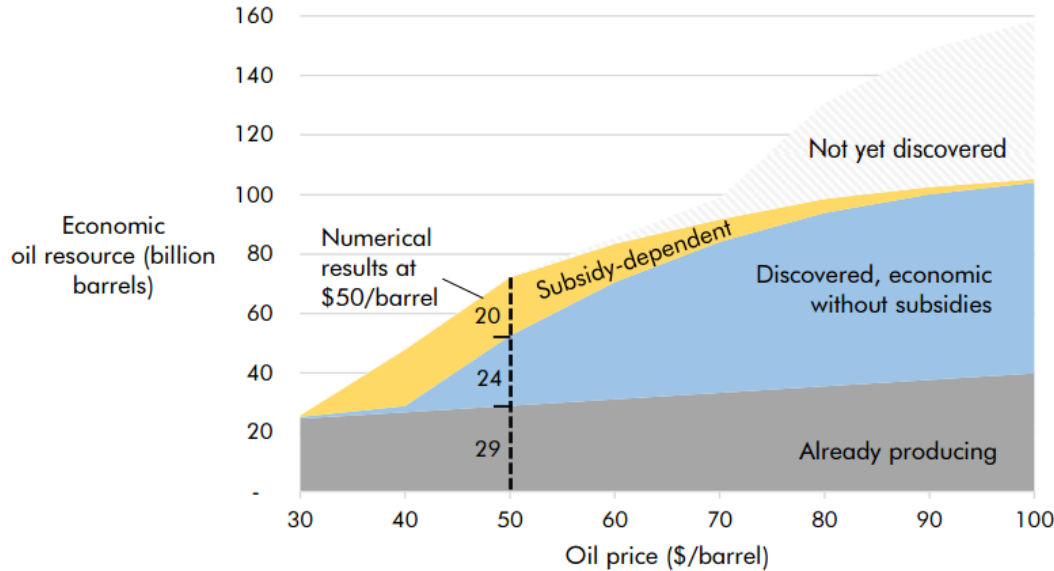
- The existing data on subsidies to various sectors only suggest activities in which there is the **potential** that additional environmental harm may be being stimulated.
- Some subsidies may be justified because they produce **less environmental harm** than in the absence of the subsidies – e.g., well-targeted subsidies to poor households in developing countries to make kerosene or LPG more affordable (so that they do not destroy habitat in the search for biomass).
- Often there is a **mix of positive and negative** environmental externalities generated by subsidising a particular activity.
- And sometimes there are benefits in of a **social or distributional nature**, along with negative environmental externalities – though usually the social goals can be achieved more efficiently with other types of interventions.



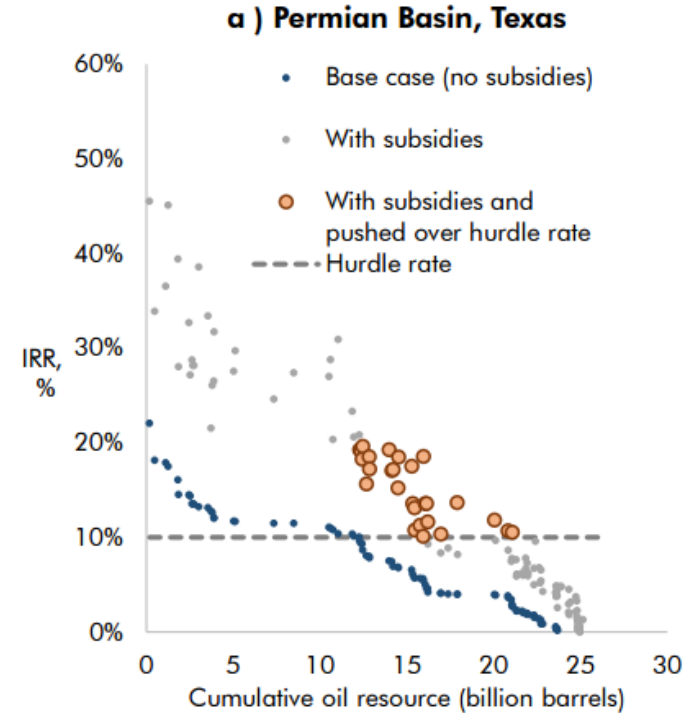
Modelling of effects

- Some large-scale modelling has been done of particular emissions (e.g., N) from **agriculture**, or changes in land use. But much work remains to be done to accurately model GHG emissions.
- Very little empirical analysis of the effects of **fishing** subsidies on changes in the resource, or on environmental parameters. Most studies are small-scale.
- There has been much more work on the effects of **fossil-fuel consumption subsidies**, and of their phasing out. CGE models at the global scale show reductions in GHG emissions of 8-15% (depending on the forecast year and various assumptions).
- Quantitative analysis of the effects of fossil-fuel production subsidies is in its beginning stage, and has concentrated on particular hydrocarbon fields.

Figure 2: Share of U.S. oil resources that are subsidy-dependent as a function of oil prices



Note: The chart assumes a 10% hurdle rate.





**WHERE DO WE GO FROM
HERE?**



Contact us

We look forward to answering any questions you may have!

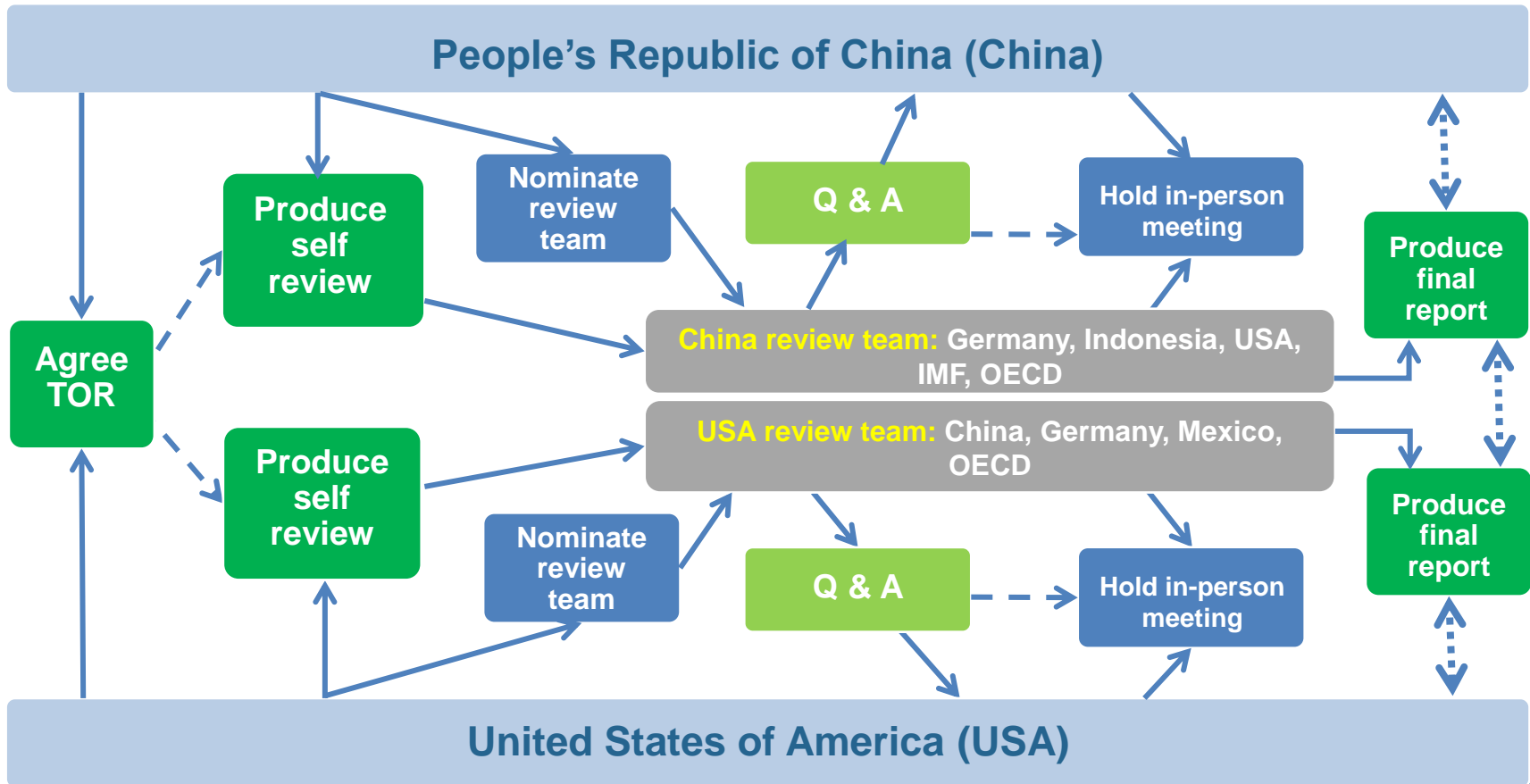


Ronald.Steenblik@oecd.org

The G20 and APEC voluntary peer reviews

- This led in December 2013 to a joint announcement by the People’s Republic of China and the United States of America that the two countries would undertake a reciprocal peer review of their fossil-fuel subsidies under the G20 process.
- Other countries—Germany, Mexico, and Indonesia—have since joined China and the United States in agreeing to undertake peer reviews of their own under the G20.
- A similar exercise is taking place in the context of APEC, with Peru, New Zealand, the Philippines, and Chinese Taipei each having already undergone a peer review of their subsidies between March 2014 and September 2016, and Viet Nam and Brunei Darussalam have also volunteered to undertake APEC peer reviews.

The G20 voluntary peer-review of FFS process



Voluntary peer reviews: vehicles for knowledge transfer and support between G20 countries

- Participation in a peer reviews encourages a country to think about the sequencing of reform, and what it can commit to publicly.
- The self reviews, and the peer reviews themselves have been more detailed or covered more policies, or both, than the progress reports.
- Preparing for the reviews can be a salutary learning experience for both the country under review (including across ministries) and the peer reviewers.
- There has been an element of precedent-setting in both the structure and conduct of the reviews, and in what types of policies were discussed and how they were discussed.
- A common understanding of what is meant by terms like “subsidy” and “inefficient” is likely to emerge.

» How to improve and build on the PR process?

- Agree a target phase-out date for “inefficient fossil-fuel subsidies”
- Consult with trade experts, in addition to experts from finance and energy ministries.
- Develop a central repository for peer-review reports and country progress reports (recently established : <http://www.oecd.org/site/tadffss/publication/>).
- Establish a mechanism for monitoring follow-up to the peer reviews.
- Establish peer-review processes for economies that are not members of either APEC or the G20.
- Develop common criteria for ranking different types of policies (or combinations of policies) for reform.

Common elements of successful subsidy reform

■ Get the prices right

- *Ensure that prices reflect the full economic cost of the energy that is being supplied.*
- *Set prices before tax with reference to international market prices and adjust as necessary to reflect inflation and currency volatility.*
- *Ensure that pricing systems are transparent, well-monitored and enforced.*

Common elements of successful subsidy reform

■ Consult and communicate at all stages

- *A comprehensive communication strategy is essential to convince citizens.*
- *Such a strategy must speak to all energy users, but especially those most affected by the reforms.*
- *Public inquiries, speeches, debates, workshops and printed material can all contribute.*

Common elements of successful subsidy reform

■ Implement reforms in steps

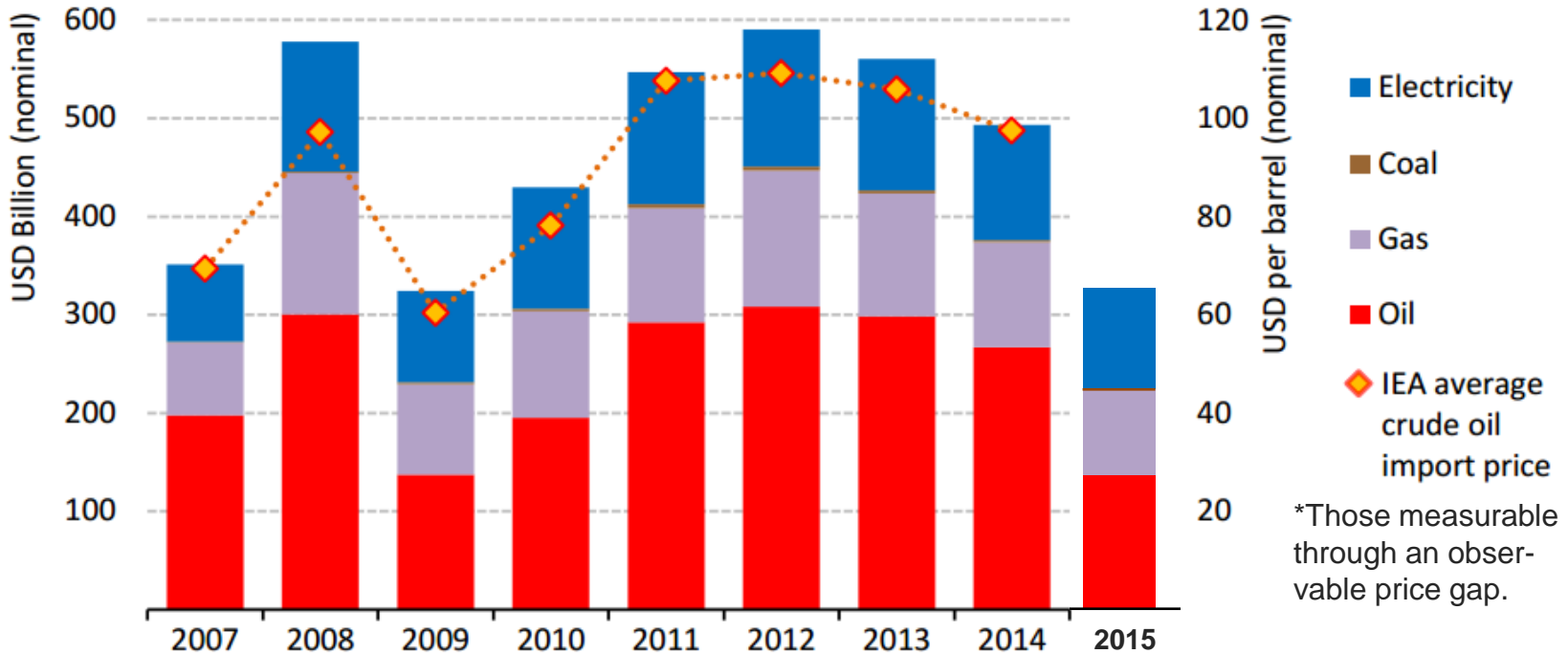
- *Introduce the reform in small steps to avoid abrupt and large price rises that may crystallise strong opposition.*
- *A formula-based pricing system ensures retail prices track international benchmarks.*
- *Set up independent body to oversee energy pricing, help consumers understand and accept the reasons for price changes.*

Common elements of successful subsidy reform

■ Manage the effects

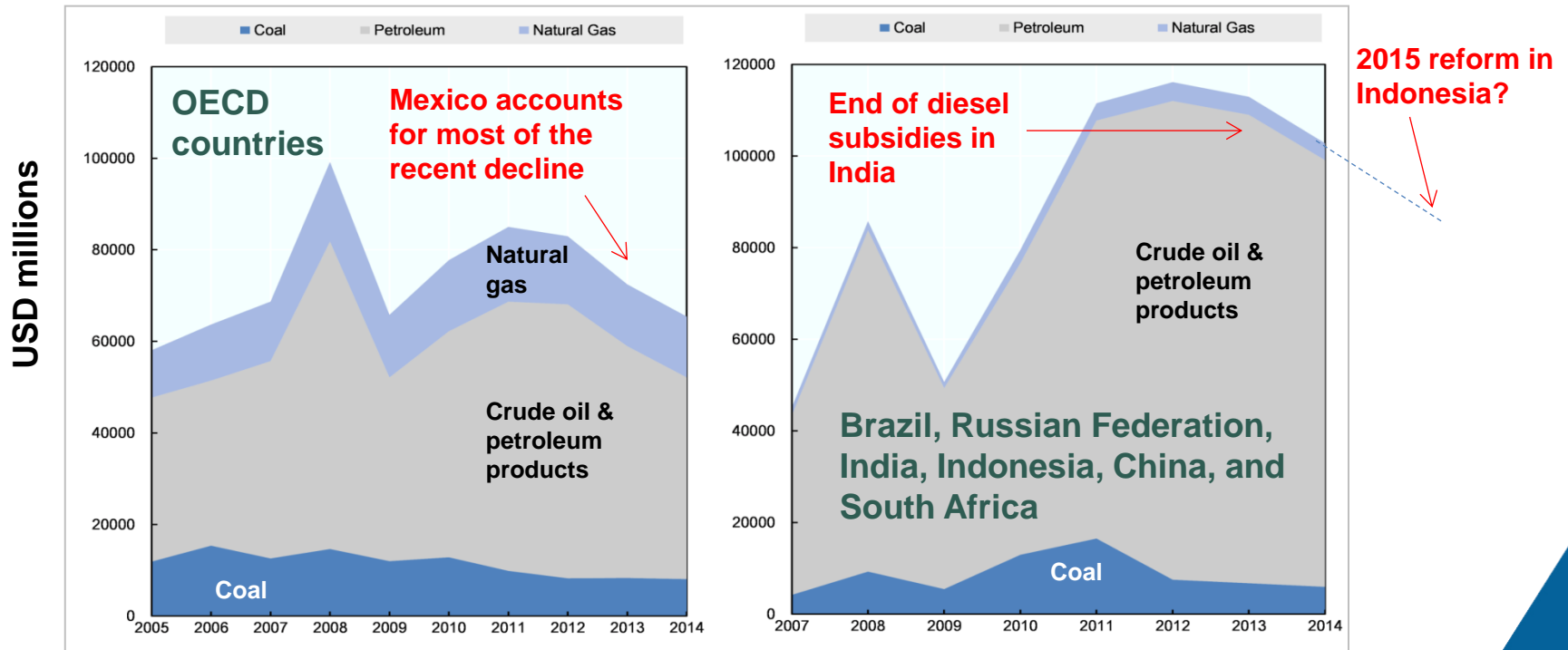
- *Social reforms may need to be implemented in parallel to protect vulnerable groups.*
- *For example, conditional cash transfers to those with the lowest income may be required; but the effectiveness of such measures must be regularly monitored and evaluated.*

The IEA's estimates of global fossil-fuel consumption subsidies*



Sources: IEA (2015 & 2016), *World Energy Outlook*, OECD/IEA, Paris.

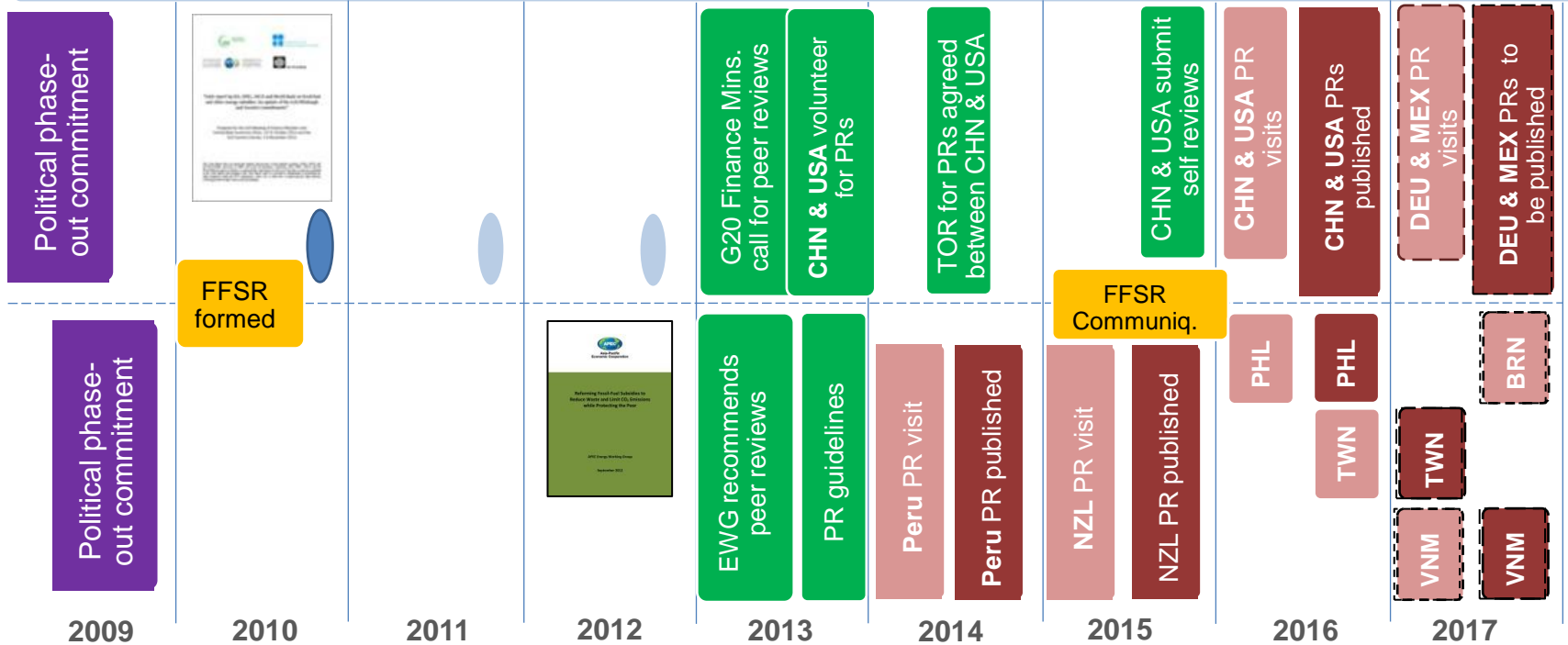
The OECD's estimates of fossil-fuel support in OECD countries and the BRICS



Sources: OECD (2015), *OECD Companion to the Inventory of Support Measures for Fossil Fuels 2015*, OECD Publishing, Paris.

The G20 and APEC timelines to date

Group of Twenty (20)



Asia-Pacific Economic Cooperation (APEC)