

NATURAL GAS TRANSPARENCY: BANK VIEWPOINT

IEF – DOHA – QATAR – 22-23 MAY 2012

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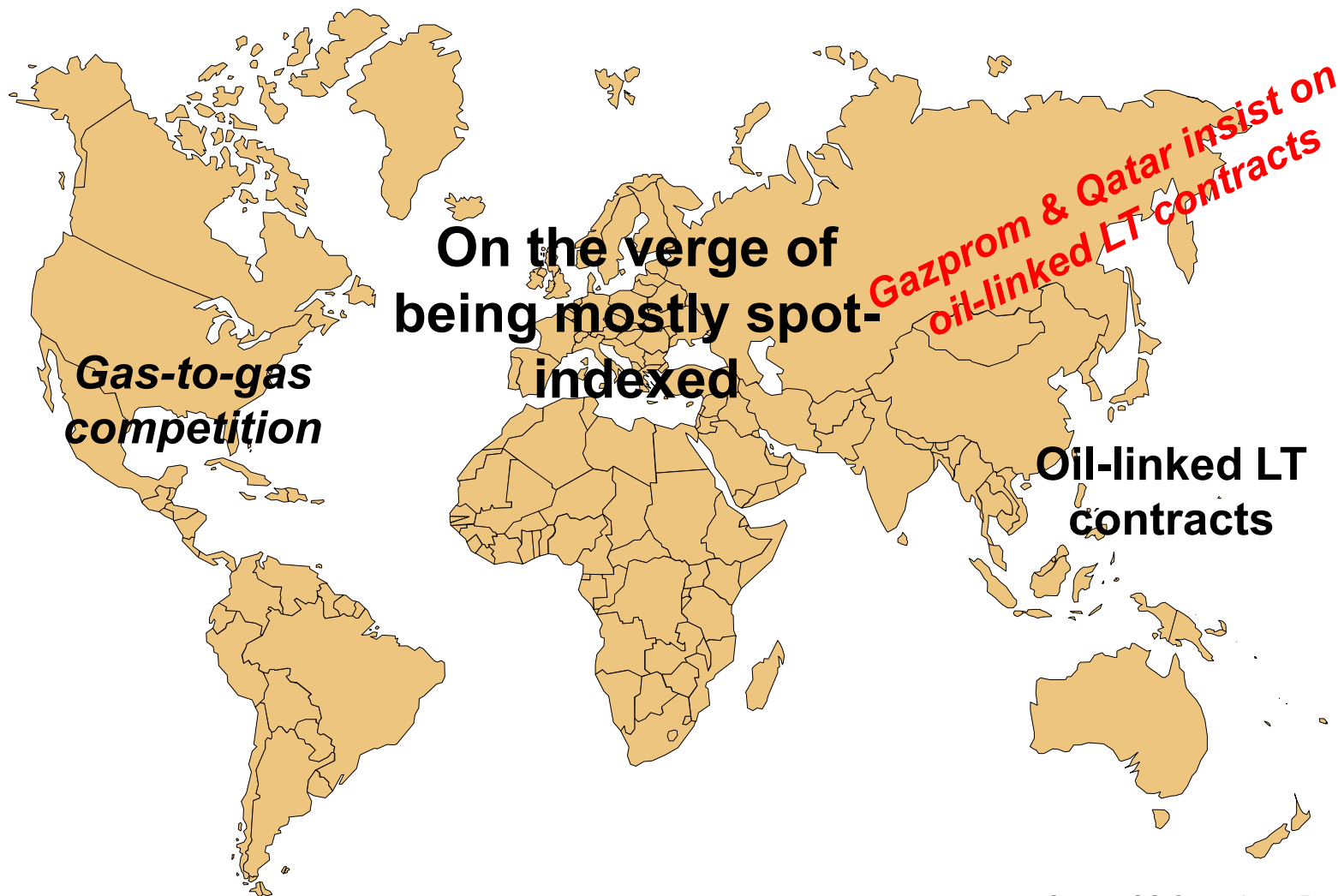
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SOCIETE GENERALE
Cross Asset Research

WHY UP-TO-DATE DATA?



Source: SG Cross Asset Research

EUROPEAN SUPPLY: ON THE VERGE OF BEING MOSTLY SPOT-INDEXED?

Estimated split of European gas supply in 2011

58% still oil-indexed

Other spot (incl. of
Gazprom, Norway
and GasTerra)
25%

Gazprom (oil)
23%

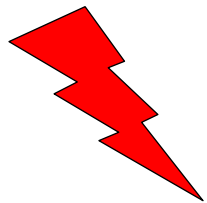
Sonatrach (oil)
10%

Norway (oil)
9%

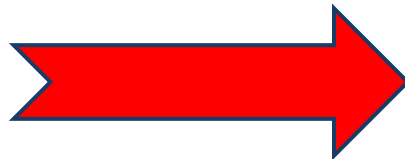
GasTerra (oil)
7%

Other oil index
9%

UK market (spot)
17%



**E.ON, PGNiG
and RWE
arbitrations,
Statoil
renegotiations
and growth in
demand could
reduce oil
indexation to
below 50%**



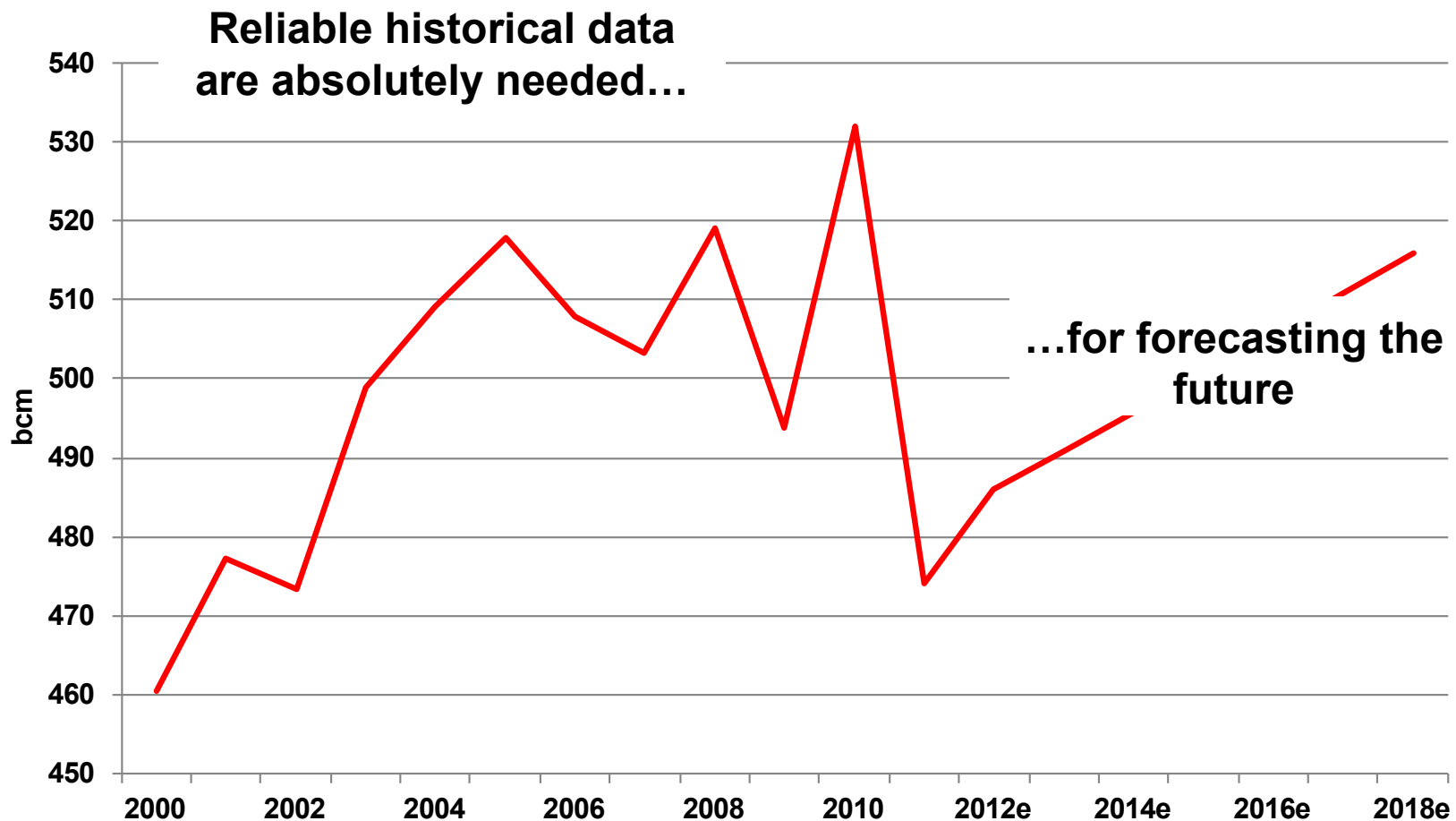
Source: SG Cross Asset Research

IMPORTANCE OF MARKET PLACE

- **Price discovery mechanism established by market place**
- **The only signal given by a market is the price**

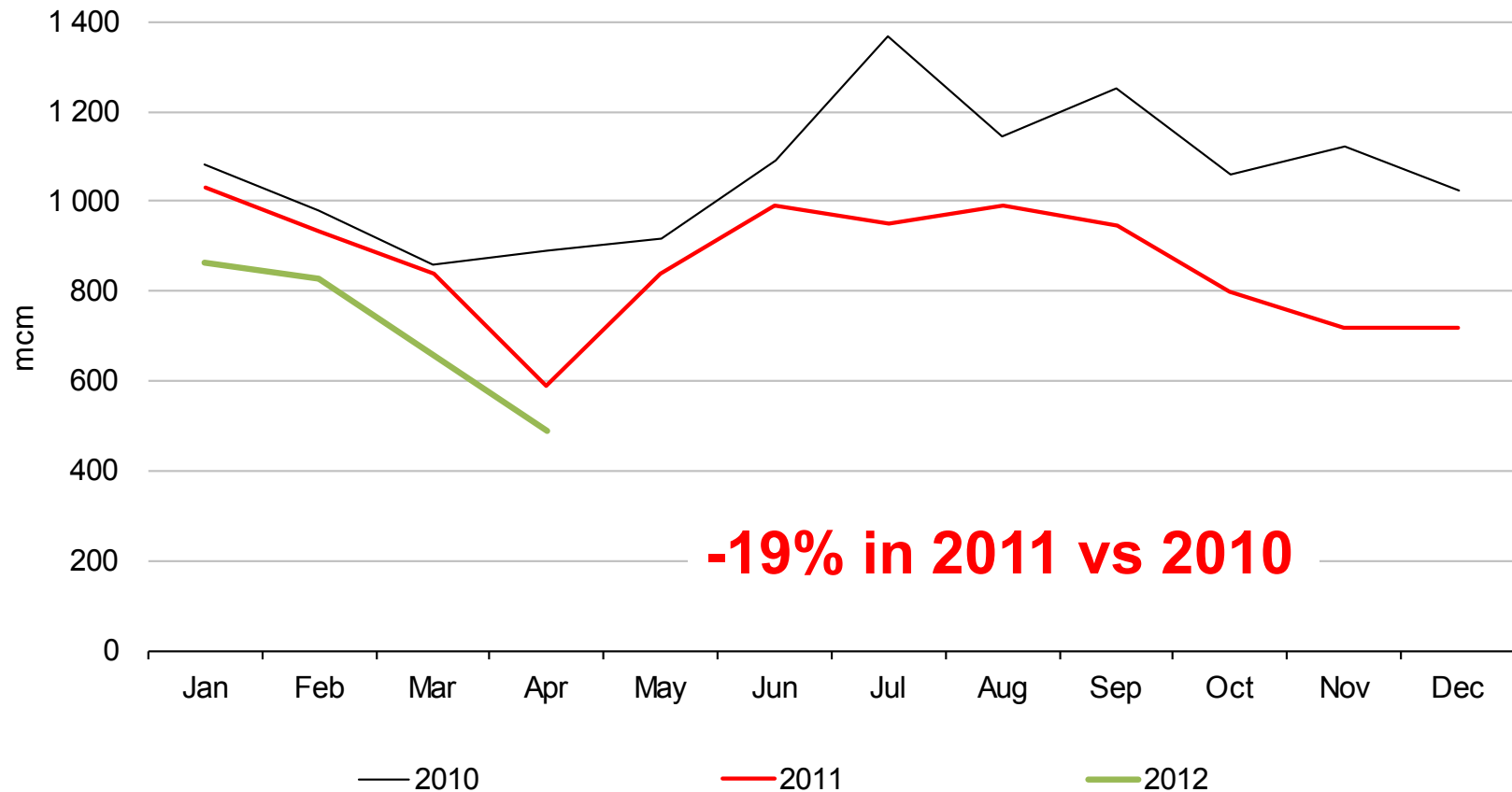
- **The more transparent the market, the better the signal**
- **Data transparency must become a standard**

EUROPEAN GAS DEMAND



Source: IEA for historical data, SG Cross Asset Research estimates

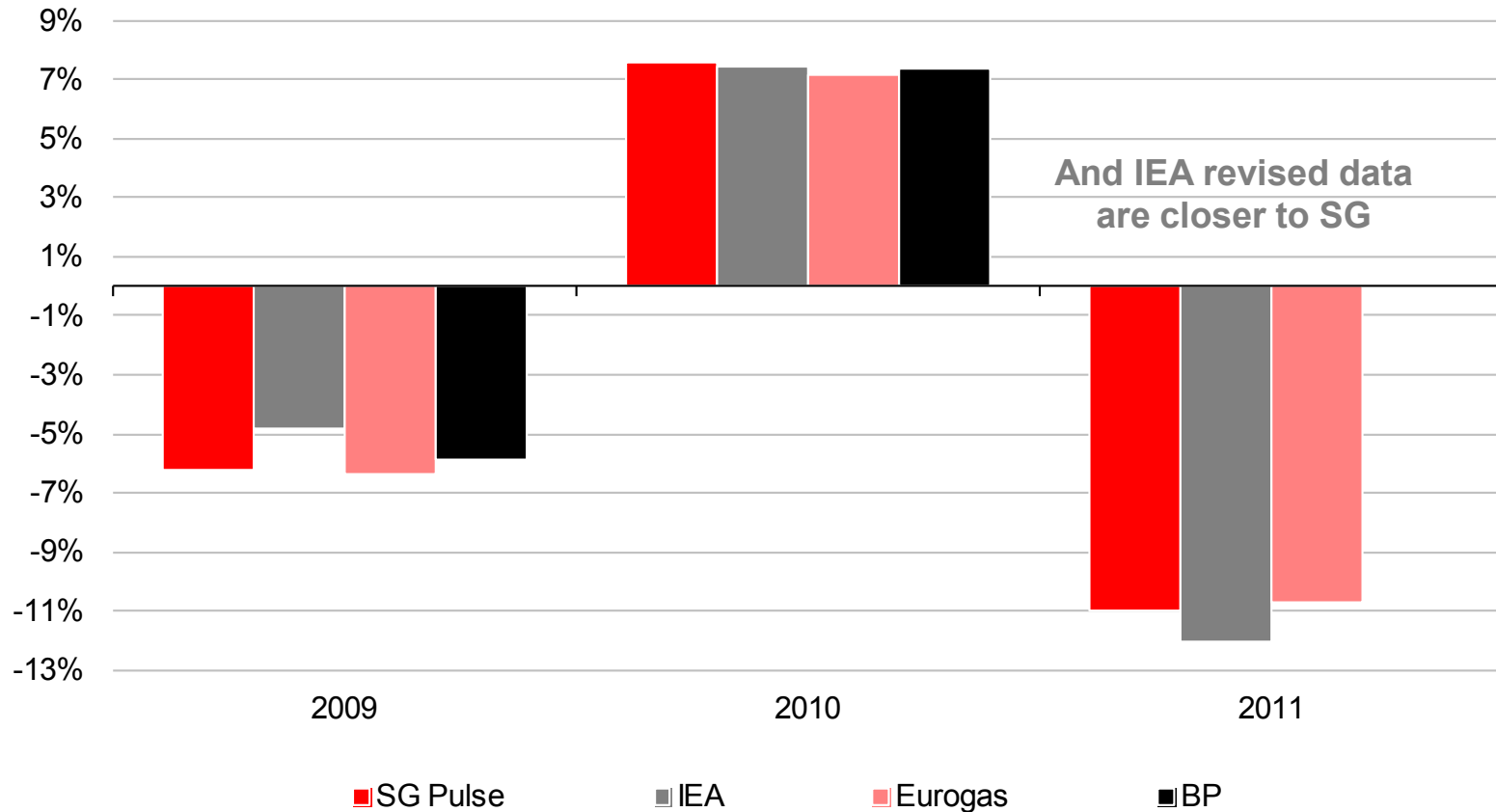
GAS FOR ELECTRICITY PRODUCTION IN SPAIN



Source: SG Cross Asset Research, Enagas

SG GAS PULSE, A LEADING INDICATOR FOR EUROPE

Initial yoy estimates



Source: SG Cross Asset Research, IEA, Eurogas, BP Statistical Review

WHY MONTHLY DATA?

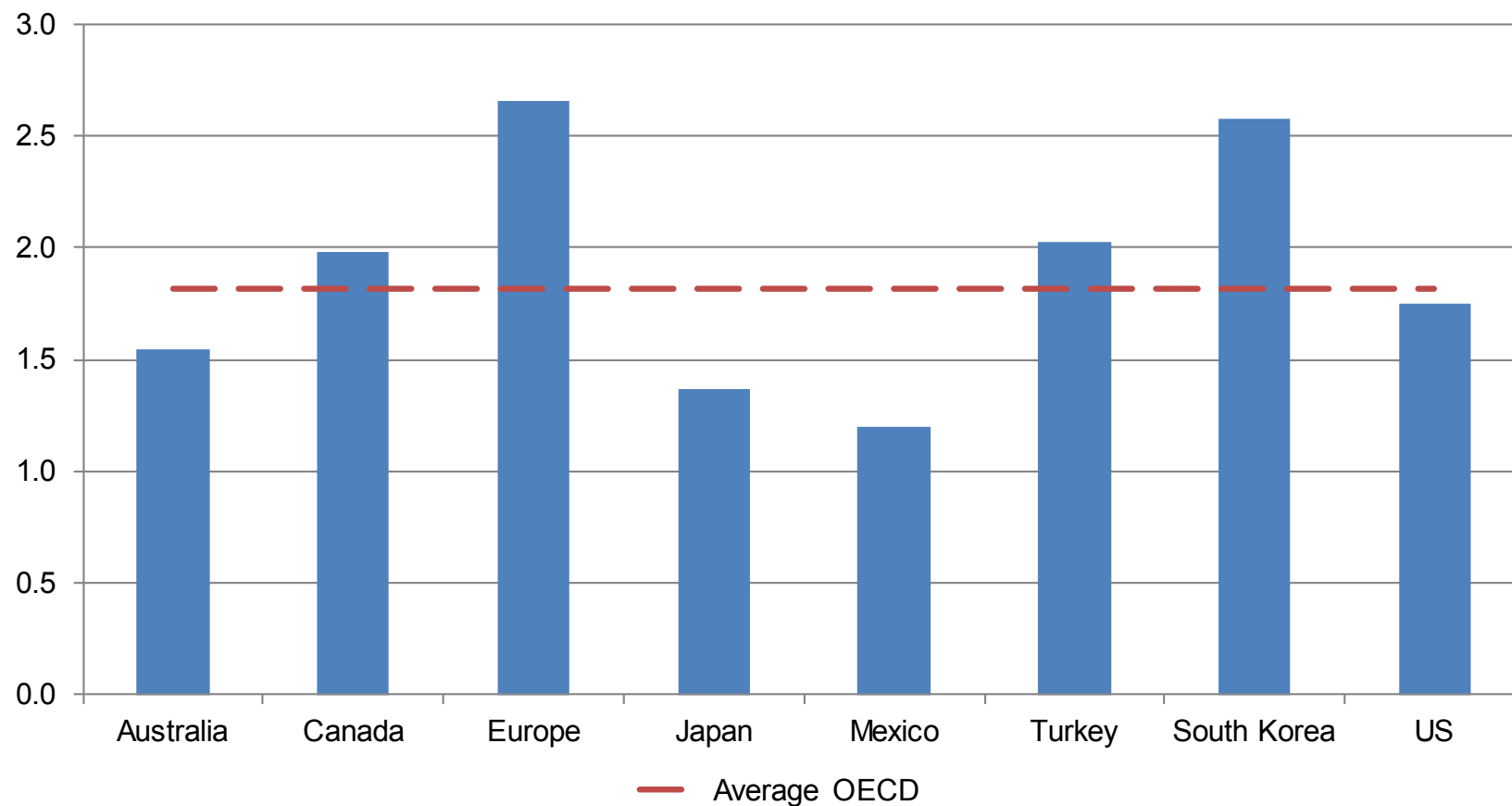
■ Household customers represent 1/3 of total demand

- Demand is highly seasonal
- Demand is weather dependent

■ Swings in production

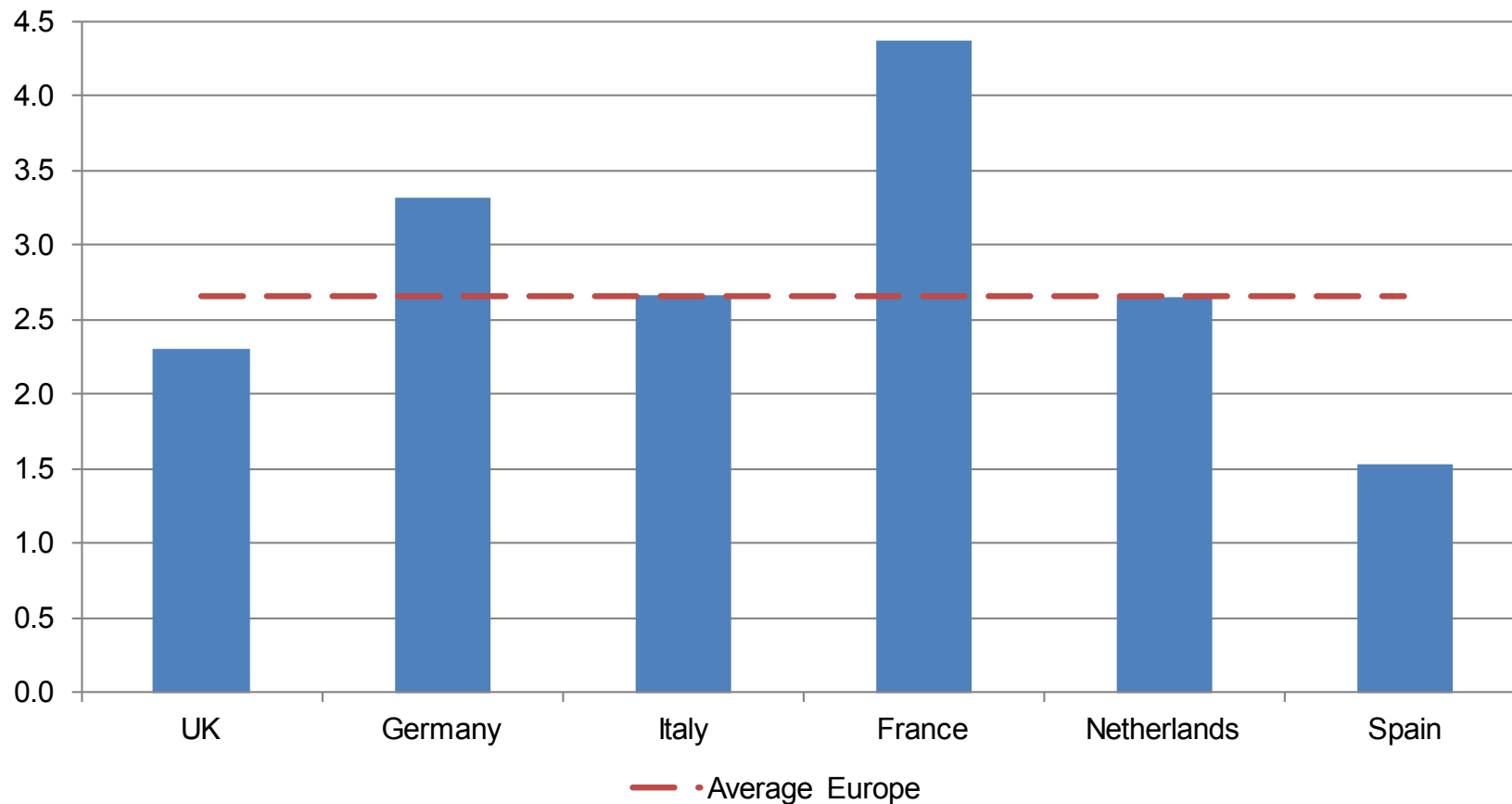
■ Importance of storage

OECD DEMAND SEASONALITY (HIGH DEMAND MONTH / LOW DEMAND MONTH)



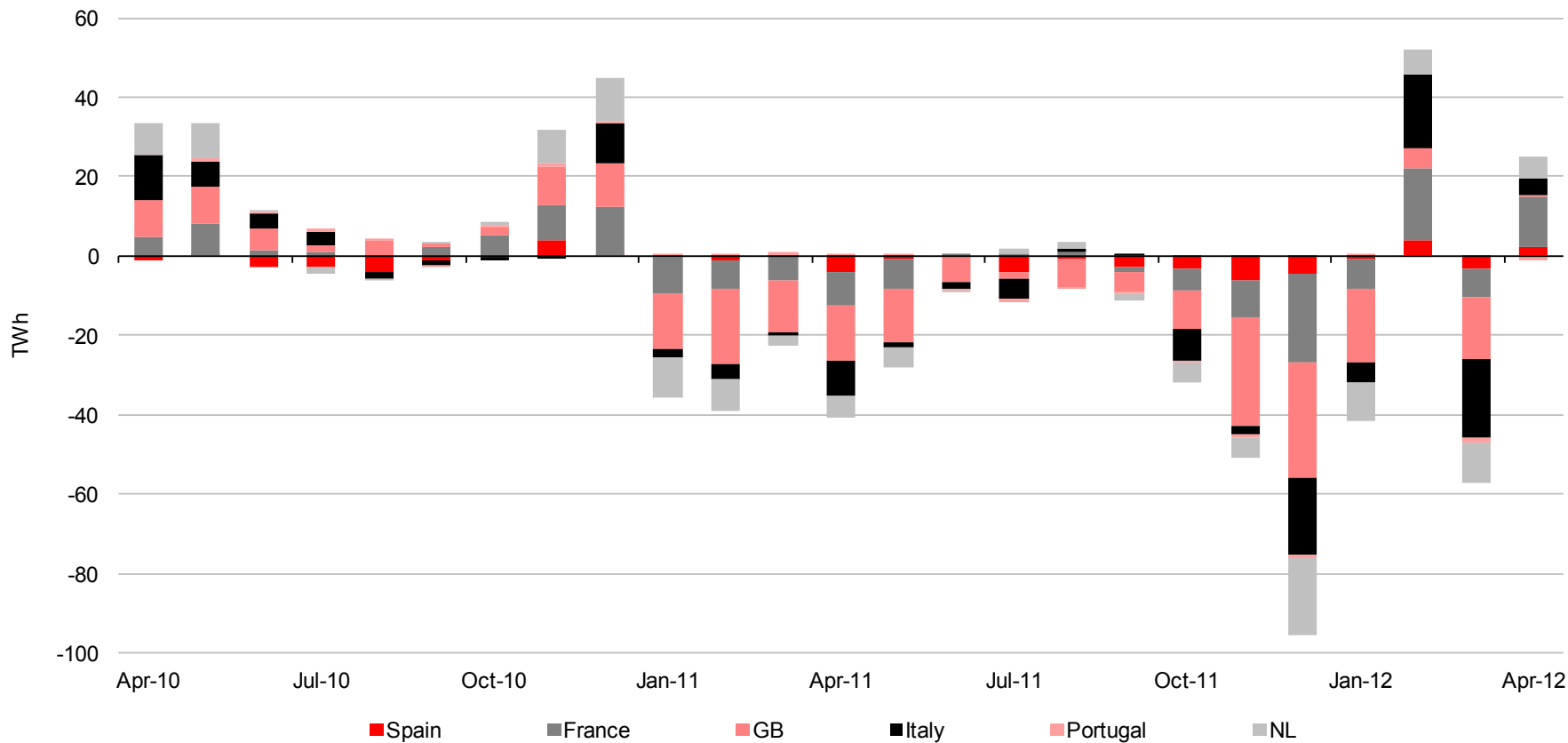
Source: SG Cross Asset Research, IEA

EUROPE DEMAND SEASONALITY (HIGH DEMAND MONTH / LOW DEMAND MONTH)



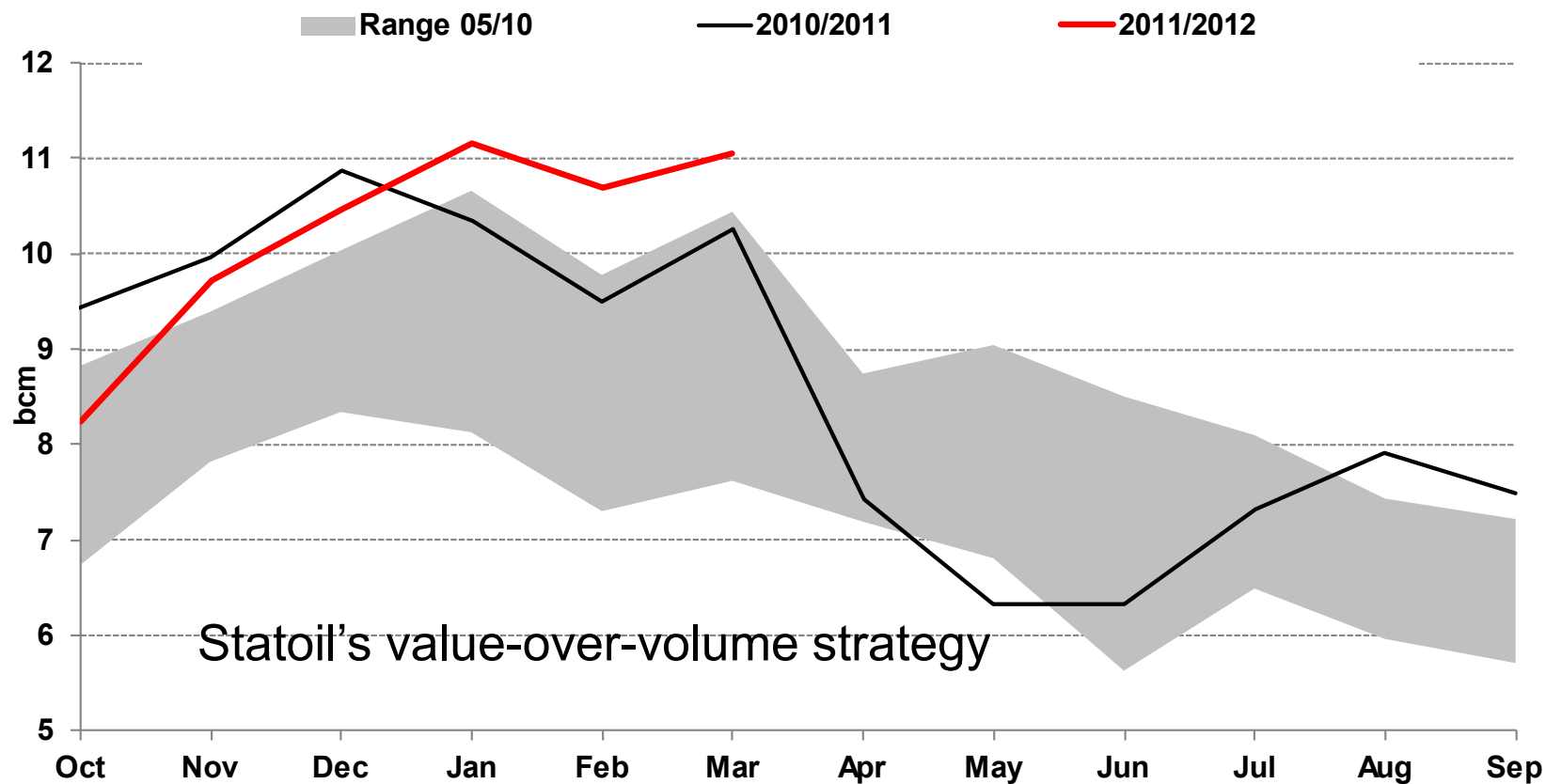
Source: SG Cross Asset Research, IEA

SG GAS PULSE: -1.8% IN JAN-APR 12 VS JAN-APR 11



Source: SG Cross Asset Research, GRT Gaz, TIGF, National Grid, Enagas, REN, Snam Rete Gas, GTS Netherlands

NORWAY: MONTHLY PRODUCTION



Statoil's value-over-volume strategy

Source: Norwegian Petroleum Directorate, SG Cross Asset Research

MONTHLY (M-1) DATA NEEDED

■ Demand – COMPULSORY

- Gas for electricity production when available

■ Pipeline flow data – COMPULSORY (REGULATED / MONOPOLY)

■ Storage – COMPULSORY (REGULATED / MONOPOLY)

■ Trade flow data – A MUST FOR JODI

■ Gas production from major field

■ Liquefaction by train

■ Complete maintenance schedule published further in advance

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