



# World Commodity Prices in 2011 – 2013

Brussels, November

**PROJEKT • CENE SUROVIN**

**Delovni zvezki**

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## **DELOVNI ZVEZKI SKEP**

Številka 4, Letnik XIX, november 2012  
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### **PROJEKT • CENE SUROVIN**

## **WORLD TRADE AND COMMODITY PRICES IN 2012-2013**

Ocene in napovedi za glavne svetovne surovine, jesen 2012

Pripravljeno v AIECE – Delovni skupini za surovine

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Delovni zvezek smo pripravili na osnovi članstva in aktivnega sodelovanja v Združenju evropskih konjunkturnih inštitutov AIECE, v okviru katerega deluje tudi posebna ekspertna skupina za svetovne cene surovin. Ta dvakrat letno pripravi pregled in napovedi gibanja cen najpomembnejših svetovnih surovin. Poročilo ne izraža stališča združenja AIECE, niti ni nujno osebno mnenje posameznega člana strokovne skupine, ki so predstavniki včlanjenih inštitutov. Na osnovi medsebojnega dogovora ima vsak od članov AIECE pravico uporabe rezultatov dela skupine za svoje uporabnike v okviru strokovnih gradiv, ki jih izdaja.

### **V AIECE so člani skupine Working Group on Commodity Prices naslednji evropski inštituti:**

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BIPE	Bureau d'Information et de Prévisions Économiques, Issy-les-Moulineaux
ETLA	Research Institute of the Finnish Economy, Helsinki
GKI	Economic Research Co., Budapest
HWWI	Hamburg Institute of International Economics, Hamburg
IfW	Kiel Institute for the World Economy, Kiel
IBRKK	Institute for Market, Consumption and Business Cycles Research, Warsaw
Insee	Institut National de la Statistique et des Etudes Économiques, Paris
Prometeia	Prometeia S.p.A., Bologna
NIER	National Institute of Economic Research, Stockholm

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## POVZETEK GIBANJA NAJPOMEMBNEJŠIH SVETOVNIH CEN SUROVIN

### Cene surovin ob presežni ponudbi popuščajo

Svetovne cene surovin so, po izrazitem nazadovanju ob koncu leta 2011 in v prvih letošnjih mesecih, v teku leta 2012 nekoliko pridobile, jeseni 2012 pa so se v povprečju stabilizirale, čeprav ostajajo razlike med posameznimi skupinami surovin velike.

Umiritev in celo nazadovanje cen surovin odraža stanje v svetovnem gospodarstvu, ob skromnejši industrijski proizvodnji in povpraševanju nasploh. Številni proizvajalci in predelovalci surovin beležijo presežne kapacitete in so prisiljeni v nižanje stroškov in cen. Dejstvo pa je tudi, da so povprečne cene surovin še vedno na zgodovinsko visokih ravneh in da trgi dodatnih zvišanj ne prenesejo. Kljub jasnim tržnim temeljem, na katerih temelji napoved o popuščanju cen surovin, pa ostajajo na mestu tudi tveganja za nadaljnjo krepitev cen, ki imajo bodisi politično ozadje bodisi nanje vplivajo nepredvidljivi vremenski dejavniki. Obstaja tudi verjetnost, da bi povečana likvidnost finančnega sistema, ki jo države in centralne banke namenjajo oživitvi financiranja gospodarstva, vplivala na povpraševanje investitorjev po surovinah in sprožila pritisk na cene.

### Gibanje cen surovin, povprečne letne stopnje rasti v %

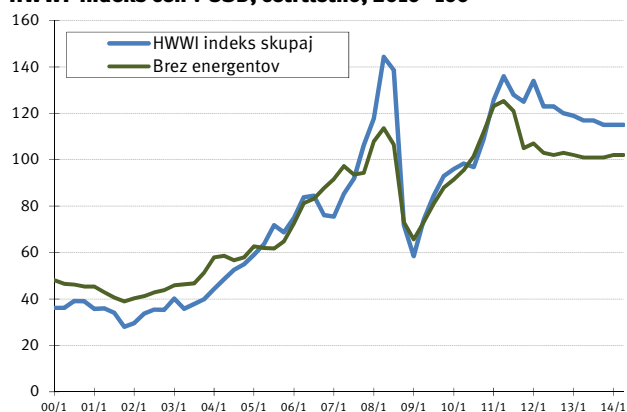
Stopnje rasti v %, merjene US dolarjih	2011	2012 ocena	2013 napoved
<b>VSE SUROVINE – SVET (HWWI indeks)</b>	<b>29</b>	<b>-3</b>	<b>-6</b>
- Vse surovine brez energentov	18	-12	-2
<b>Hrana</b>	<b>29</b>	<b>-4</b>	<b>-3</b>
<b>Industrijske surovine</b>	<b>14</b>	<b>-15</b>	<b>-2</b>
- Surovine kmetijskega izvora	11	-16	-2
- Neželezne kovine	12	-14	2
- Surovine za proizvodnjo jekla	25	-18	9
<b>Energenti</b>	<b>31</b>	<b>-1</b>	<b>7</b>
- Industrijski premog	23	-20	-4
- Surova nafta	32	0	-7

Vir: AIECE strokovna skupina za cene surovin, november 2012

Povprečne cene surovin na svetovnih trgih merjene v dolarjih, izražene s skupnim HWWI indeksom, bodo v letu 2012 v povprečju nazadovale za 3 odstotke. Po tej oceni bodo cene surovin popuščale tudi v letu 2013, ko bodo glede na leto 2012 v dolarjih nižje za 6 odstotkov.

### CENE SUROVIN 2000 - 2014

#### HWWI indeks cen v USD, četrtletno, 2010=100



Vir: AIECE strokovna skupina za cene surovin, november 2012

SKEP GZS

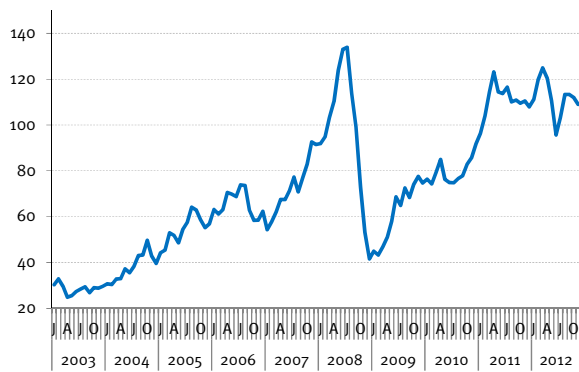
### Energenti z izjemo plina v svetovnem merilu cenejši

Po napovedih AIECE naj bi cena nafte letos dosegla 112 dolarjev za sod, kar je enako povprečni ravni iz leta 2011. V letu 2013 pa naj bi se znižala za 7 odstotkov.

Cene nafte, ki so v marcu 2012 dosegle najvišje letošnje ravni (125 USD za sod) so v naslednjih mesecih izrazito padle in junija dosegle letošnjo najnižjo raven (96 USD za sod). V poletnih mesecih so se ponovno okrepile, čemur so botrovali predvsem netržni dejavniki (stavka na Norveškem, hurikan v Mehiškem zalivu, EU

embargo na Iransko nafto), pa tudi pričakovana povečana likvidnost, spodbujena s strani centralnih bank. Septembra je nafta tako dosegala cene okrog 114 dolarjev za sod.

**GIBANJE CENE NAFTE BRENT 2003-2012 (november)**  
mesečna povprečja, v USD za sod



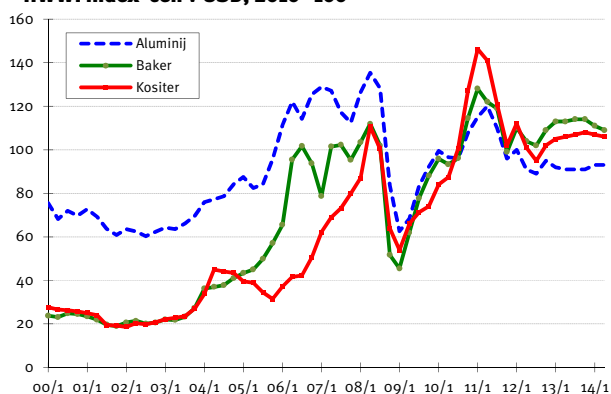
Po analizah IEA (International Energy Agency) bi zaradi razvoja novih tehnologij ZDA lahko do leta 2020 postale vodilna država proizvajalka nafte in bi tako prehiteli Saudsko Arabijo in Rusijo. S tem bi se bistveno spremenilo tudi politično razmerje sil, saj ZDA ne bi bile več odvisne od dobav iz Bližnjega vzhoda. Zmanjšal bi se njihov vojaški interes na tem območju. Na srednji rok je zato pričakovati nekoliko manjši pritisk na ceno nafte.

Cene **premoga** so v poletnih mesecih strmo upadle iz sicer visokih ravni doseženih v letu 2011. Deloma gre za prilagoditev na normalne razmere v ponudbi, ki je bila v letu 2011 močno okrnjena zaradi poplav v Avstraliji. Deloma gre padec pripisati zadržanemu povpraševanju s strani močnih industrijskih sil kot sta Kitajska in tudi EU. **Zemeljski plin** postaja med energenti vse pomembnejši. Njegova cena je lani zrasla v povprečju za 26 odstotkov, letos še za dodatnih 7 odstotkov, kljub nizki gospodarski aktivnosti. Krepijo se kapacitete za dobavo plina v EU, medtem ko v ZDA uveljavljajo nove tehnološke načine za pridobivanje. Razvoj kratkoročnega trgovanja z zemeljskim plinom je v Evropi močno okreplil pritisk za nižanje cen tudi pri dolgoročnih pogodbah.

### Neželezne kovine strmo navzdol

Tržni presežki neželeznih kovin naj bi v prihodnjih dveh letih z izjemo bakra držali cene navzdol. Cene **aluminija** popuščajo že vse od sredine leta 2011 in so za okrog 20 odstotkov nižje kot pred letom dni. Ker je povpraševanje po aluminiju v primerjavi z ostalimi nekovinami spodbudno, se še naprej povečujejo proizvodne zmogljivosti (Rusija, Kitajska, Indija). Cene bi se lahko okrepile proti koncu leta 2012 zaradi izvoznih omejitev boksita iz Indonezije. Povprečna cena aluminija v letu 2012 bo za 15 odstotkov nižja kot v letu 2011, v letu 2012 pa naj bi se znižala le še za 3 odstotke.

**NEŽELEZNE KOVINE, 2000 - 2014,**  
HWWI index cen v USD, 2010=100



Upad gradbene aktivnosti na Kitajskem je vplival tudi na presežek ponudbe in nižanje cen **niklja**, glavne surovine za proizvodnjo jekla. Padec je nekoliko omililo novo povpraševanje iz Rusije in Brazilije. Povprečna cena niklja bo letos od lanske nižja za 22 odstotkov, v letu 2013 pa naj bi se popravila za 4 odstotke, predvsem zaradi vpliva indonezijskih omejitev izvoza. Podobno nazadovanje velja tudi za cene **svinca in cinka**, saj so poleti dosegle najvišje ravni zalog v zadnjih 17 letih. V povprečju letošnjega leta bo svinec tako cenejši za 15 odstotkov, cink pa za 11 odstotkov. Za leto 2013 je pričakovati ohranitev letošnje ravni cen. **Baker** je med neželeznimi kovinami v zadnjem letu najmanj izgubil, vendar ne zaradi potreb v industriji temveč zaradi nakupov kitajskih finančnih investitorjev, ki so ga uporabljali za zavarovanje posojil. Ob oživiljanju kapitalskih trgov tudi v ZDA in EU je pričakovati, da bo baker ostal še naprej tudi »kapitalska« surovina in bo tako ohranjal ceno. Po oceni AIECE bo tona bakra letos v povprečju glede na lansko leto cenejša za 9 odstotkov, v letu 2013 pa naj bi se cena okrepila za 7 odstotkov.

### GIBANJE CEN SUROVIN NA SVETOVNIH TRGIH ZA GLAVNE BLAGOVNE SKUPINE 2011 –2014 v US\$ Stopnje rasti v US\$ glede na preteklo leto oziroma preteklo četrletje

SKUPINE SUROVIN	2011	2012	2013	2011		2012				2013				2014	
				III	IV	I	II	III	IV	I	II	III	IV	I	II
<b>HWVI INDEKS - SUROVINE SKUPAJ</b>	<b>29</b>	<b>-3</b>	<b>-6</b>	<b>-5</b>	<b>-3</b>	<b>7</b>	<b>-8</b>	<b>0</b>	<b>-2</b>	<b>0</b>	<b>-2</b>	<b>0</b>	<b>-2</b>	<b>0</b>	<b>0</b>
<b>1. SUROVINE SKUPAJ, brez energentov</b>	18	-12	-2	-4	-13	2	-4	-1	1	-1	-1	0	0	1	0
<b>Prehrambene in tropске surovine</b>	29	-4	-3	-3	-11	1	-1	14	-4	-3	-3	-2	0	1	1
Žitarice	42	1	1	-5	-8	0	-3	25	-1	-3	-4	-4	-3	0	0
Pijače, sladkor	26	-21	1	-1	-11	-5	-12	1	0	3	1	0	2	1	1
Oljarice in olja	23	10	-11	-2	-12	9	12	15	-10	-7	-6	-2	1	2	2
<b>Industrijske surovine</b>	14	-15	-2	-4	-14	2	-5	-7	4	0	0	1	0	0	-1
Surovine kmetijskega izvora	11	-16	-2	-3	-12	-3	-1	-7	2	0	1	1	0	1	0
Neželezne kovine	12	-14	2	-6	-15	7	-8	-3	7	0	-1	0	0	0	-1
Staro železo in železova ruda	25	-18	-9	0	-15	0	-2	-16	-3	1	1	1	0	0	-3
<b>2. ENERGENTI</b>	31	-1	-7	-6	0	8	-9	0	-3	0	-2	0	-2	0	0
Industrijski premog	23	-20	-4	0	-6	-1	-14	-6	-2	0	6	0	5	5	5
Surova nafta	32	0	-7	-6	0	9	-9	0	-3	0	-3	0	-2	0	0
Zemeljski plin	26	7	3	6	5	-2	3	-3	1	2	1	1	2	2	2

Vir: World Commodity Prices 2012-2014 - AIECE Working Group on Commodity Prices, november 2012

### GIBANJE CEN SUROVIN NA SVETOVNIH TRGIH ZA GLAVNE BLAGOVNE SKUPINE 2012 –2014 v EUR Stopnje rasti v EUR glede na preteklo leto oziroma preteklo četrletje

SKUPINE SUROVIN	2011	2012	2013	2011		2012				2013				2014	
				III	IV	I	II	III	IV	I	II	III	IV	I	II
<b>HWVI INDEKS - SUROVINE SKUPAJ</b>	<b>22</b>	<b>5</b>	<b>-7</b>	<b>-4</b>	<b>2</b>	<b>10</b>	<b>-6</b>	<b>2</b>	<b>-5</b>	<b>-1</b>	<b>-2</b>	<b>0</b>	<b>-2</b>	<b>0</b>	<b>0</b>
<b>1. SUROVINE SKUPAJ, brez energentov</b>	12	-5	-3	-2	-9	5	-1	2	-1	-2	-1	0	0	1	0
<b>Prehrambene in tropске surovine</b>	23	4	-4	-1	-7	4	2	16	-7	-4	-3	-2	0	1	1
Žitarice	35	10	0	-3	-4	3	-1	28	-3	-4	-4	-4	-3	0	0
Pijače, sladkor	20	-14	1	1	-7	-2	-9	4	-2	2	1	0	2	1	1
Oljarice in olja	17	20	-12	-1	-8	12	15	18	-12	-8	-6	-2	1	2	2
<b>Industrijske surovine</b>	9	-8	-2	-2	-10	5	-2	-5	1	-1	0	1	0	0	-1
Surovine kmetijskega izvora	5	-9	-2	-2	-8	0	2	-5	-1	-1	1	1	0	1	0
Neželezne kovine	7	-6	1	-4	-11	10	-6	0	5	-1	-1	0	0	0	1
Staro železo in železova ruda	19	-11	-10	2	-11	3	0	-14	-5	0	1	1	0	0	-3
<b>2. ENERGENTI</b>	25	8	-8	-4	4	11	-7	2	-5	-1	-2	0	-2	0	0
Industrijski premog	17	-13	-4	2	-2	2	-12	-4	-5	-1	6	0	5	5	5
Surova nafta	25	9	-8	-4	5	12	-7	3	-5	-1	-3	0	-2	0	0

Vir: World Commodity Prices 2012-2014 - AIECE Working Group on Commodity Prices, november 2012

### Proizvodnja jekla še vedno visoka, a se umirja

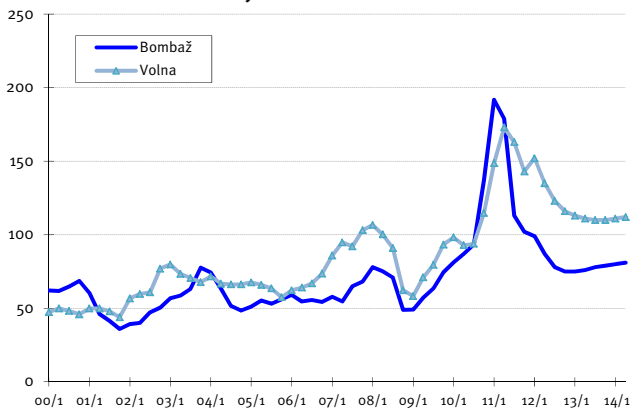
Potem ko je proizvodnja **jekla** v letu 2011 dosegla največji zgodovinski obseg, se je v teku leta 2012 umirila, a naj bi ostala na visoki ravni tudi v letu 2013. Izkoriščenost proizvodnih kapacitet je z okrog 75 odstotki zelo nizka, zato večjih investicij v jeklarski industriji ni pričakovati, konkurenca med proizvajalci pa bo izrivala tiste s previsokimi stroški. Cene **železove rude** bodo letos za 22 odstotkov nižje kot lani in v letu 2013 še za 11 odstotkov nižje. Tudi cene odpadnega železa in jekla upadajo, cene drži le še nerjaveče jeklo, ki ga poganja Kitajska z blizu 50-odstotnim deležem proizvodnje.

### Industrijske surovine kmetijskega izvora cenejše

Industrijske surovine kmetijskega izvora bodo letos v povprečju za 16 odstotkov cenejše kot lani, v letu 2013 pa se bo padanje že ustavilo saj bodo povprečne cene le še za 2 odstotka nižje kot letos. Trg **bombaža** bo v sezoni 2012-2013 tretje zaporedno leto v presežku, kar vpliva na nižanje cene pa tudi na krčenje proizvodnje. Kitajsko povpraševanje, ki predstavlja približno tretjino svetovnega, bo letos najnižje v zadnjih desetih letih. Skladno s tem bo povprečna letošnja cena kar za 42 odstotkov nižja od lanske, v letu 2013 pa je pričakovati nadaljnje zmanjšanje za 9 odstotkov. **Volna** se je ob podobnih tržnih razmerah cenila nekoliko manj izrazito, saj je proizvodnja manj fleksibilna kot pri bombažu. V letu 2012 je za volno pričakovano 16-odstotno, v letu 2013 pa 15-odstotno povprečno znižanje cen.

Cena **surove gume** je v letu 2012 po dveh letih strme rasti upadla in bo v povprečju nižja od lanske za 29 odstotkov. Vendar je že proti koncu leta 2012 pričakovati ponoven pritisk za dvig cen, saj so se tri države največje proizvajalke, Tajska, Indonezija in Malezija, dogovorile o krčenju izvoza in pomladitvi nasadov. Za leto 2013 je napovedano povprečno 4-odstotno znižanje letošnjih cen. Cene **celuloze** ostajajo na razmeroma visoki ravni tudi v naslednjih dveh letih, saj so se že v začetku leta 2011 vrnila na visoke ravni iz leta 2008. Letos je pričakovati padec cen celuloze za 16 odstotkov letu 2012 in za 4 odstotke v letu 2013.

#### TEKSTILNE SUROVINE, 2000 - 2014 HWWI indeks cen v USD, 2010 = 100



Vir: AIECE strokovna skupina za cene surovin, november 2012

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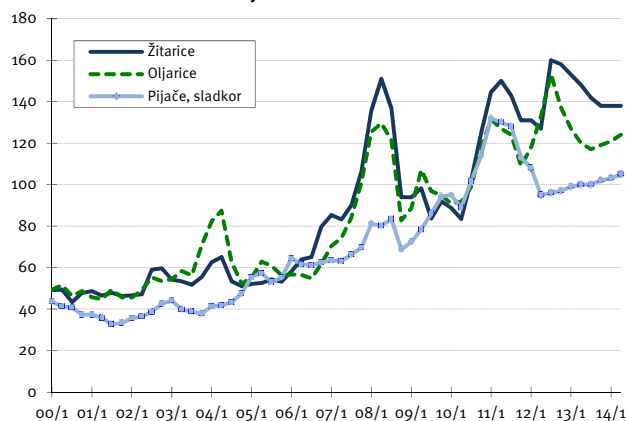
### Hrana in prehranske surovine ostajajo izjemno visoko

Cene hrane in prehranskih surovin naj bi se v povprečju letos znižale le za 4 odstotke, v letu 2013 pa za 3 odstotke. Ceno najbolj drži jo žita (pšenica, ječmen, koruza), ki so v povprečju glede na leto 2010 dražja skoraj za četrtino. Med najbolj stabilnimi pa sta trga riža in čajev, kjer so nihanja cen najmanjša. Letina **pšenice** je bila letos skromnejša, saj jo je oklestila suša tako na črnomoških kot tudi na avstralskih poljih, deloma tudi v ZDA. Zaradi visokih cen se bo zmanjšala predvsem poraba za krmiljenje živali, medtem ko je poraba žit v prehranske namene razmeroma stabilna in neelastična. Cena pšenice naj bi tako letos kot prihodnje leto ostala približno na ravni iz leta 2011. Povpraševanje po **koruzi** se bo zaradi visokih cen nekoliko umirilo, vendar ostaja trg koruze zaradi izredno nizkih zalog zelo občutljiv na tveganja. Cene bodo ostale zgodovinsko visoke v obeh letih, 2012 in 2013.

Cena **kave** se je v letu 2012 umirjala saj se je normalizirala proizvodnja v Braziliji in Vietnamu, hkrati pa stagnira tudi povpraševanje po kavi predvsem iz držav južne Evrope, ki jih je kriza najbolj prizadela. Povprečna cena kave bo letos predvidoma za 24 odstotkov nižja kot lani, v letu 2013 pa je pričakovati ohranitev dosežene ravni cen. Letošnja letina **kakava** bo po pričakovanjih visoka, čeprav še obstajajo tveganja suše v zahodni

Afriki. Cene kakava pa bodo zaradi nižjega povpraševanja iz Evrope letos nižje do 20 odstotkov. Cene **sladkorja** so letos po visoki rasti vse leto upadale in dosegle najnižjo raven po letu 2010. Ponudba je preseгла povpraševanje in prvič v petih letih so se pomembneje dvignile zaloge. Letošnje cene bodo tako za 20 odstotkov nižje od lanskih, cena pa se bo po napovedih nato stabilizirala in rahlo obrnila navzgor.

**PREHRAMBENE SUROVINE, 2000-2014**  
**HWI indeks cen v USD, 2010=100**



Vir: AIECE strokovna skupina za cene surovin, november 2012 SKEP GZS

**GIBANJE CEN POSAMEZNIH SUROVIN NA SVETOVNIH TRGIH 2012-2014** **US\$**

**Stopnje rasti, glede na preteklo leto, pri četrletnih podatkih glede na preteklo četrletje**

SUROVINE	2011	2012	2013	2011		2012				2013				2014	
				III	IV	I	II	III	IV	I	II	III	IV	I	II
Ječmen	32	16	2	0	1	2	8	9	1	-2	-2	-2	-2	-2	-2
Koruza (ZDA)	58	2	2	-5	-10	3	-4	27	-5	-3	-1	-1	-1	-1	-1
Riž	10	5	-4	13	9	-11	5	4	-2	-3	-3	-2	-2	-1	0
Pšenica	33	-2	0	-10	-12	0	-5	34	6	-4	-8	-10	-7	1	1
Kava (ZDA)	42	-24	0	-6	-9	-7	-14	-1	2	2	0	1	1	2	2
Kakav	-5	-20	6	-1	-19	-5	-2	9	-2	3	0	0	2	1	1
Čaj	0	-4	4	0	-7	0	-1	4	2	2	-1	-2	-1	0	2
Sladkor	22	-20	2	17	-14	-1	-14	-1	-4	5	4	0	5	0	0
Soja	26	11	-10	0	-13	8	12	17	-10	-7	-6	-2	1	2	2
Bombaž (ZDA)	46	-42	-9	-37	-9	-3	-12	-10	-4	0	2	2	2	1	1
Volna (Avstralija)	57	-16	-15	-6	-12	6	-11	-9	-6	-2	-2	-1	0	1	1
Kavčuk (Thai)	34	-29	-4	-3	-21	1	-9	-17	9	0	0	1	1	1	0
Mehki les	0	-9	2	-1	-8	-4	1	-3	2	0	1	0	1	0	0
Celuloza	3	-16	-4	-1	-11	-6	2	-7	-3	0	0	2	0	3	0
Aluminij	10	-15	-3	-8	-13	4	-9	-3	7	-3	-1	0	0	3	0
Baker	17	-9	7	-2	-17	11	-5	-2	7	4	0	1	0	-2	-2
Svinec	12	-15	2	-4	-20	6	-6	0	6	0	-2	-1	5	0	0
Nikelj	5	-22	4	-9	-17	7	-13	-5	13	0	0	0	1	1	0
Kositer	28	-20	4	-14	-16	10	-10	-6	8	2	1	1	1	-1	0
Cink	2	-11	2	-1	-15	7	-5	-2	6	-2	1	2	1	0	0
Staro železo (ZDA)	16	-10	-5	3	-2	-3	-5	-5	-6	2	0	3	0	0	0
Betonsko železo	12	10	-4	0	0	17	-6	-6	1	0	0	1	0	0	1

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## Summary

Global economic growth slowed down in the first half of 2012. Economic expansion clearly lost pace in advanced economies, but growth rates in emerging economies were also substantially below the rates seen in previous years. More recent indicators point to an acceleration of economic developments, primarily in emerging economies. As a response to the economic slowdown, policy has turned to a more expansionary stance in countries such as China and Brazil. This will stimulate growth in the second half of 2012. From 2013 onwards, increasing demand from emerging economies should also support growth in advanced countries. A strong expansion in advanced economies is not likely, however.

In line with weakening output, the volume of world trade has further decelerated in the first half of 2012. A contraction has been avoided so far, however. In fact, in more recent months a slight increase of trade growth is observable in the data. As a broad pattern, trade of advanced countries was basically flat since early 2011, while trade of emerging and developing countries showed a weak but continuous expansion. World trade growth is expected to be substantially weaker this year than it was during the recovery from the global recession. For next year, we expect an acceleration of trade growth, but the rate will still be substantially below the long term average.

On average, world commodity prices stabilised in the third quarter of 2012 after the rather strong decline registered in late 2011 and early 2012. Yet, the overall price movement hides sharp differences between the various commodity groups. Industrial raw materials declined rather significantly over the summer months, due to ongoing weakness in demand, notably in China. Food prices on the other hand, cereals and oilseeds in particular, rallied in the wake of the severe drought in the US. Finally, oil remained unchanged. Indeed, the latter were sustained by several events during the summer, including the Norwegian offshore workers' strike, the enforcement of the embargo on Iranian oil and further expansionary measures in China, the US and the euro area.

The outlook for most commodities, notably metals, is that of a well-balanced (if not in surplus) physical market, reflecting poor demand prospects and abundant supplies. This will drive prices down in 2012 and in 2013 on annual average, with the notable exception of cereals and oilseeds for 2012, due to the spike reached during the summer. Cereals and oilseeds prices are now 11 per cent and 22 per cent above the summer 2008 record high, respectively.

On a quarterly basis, commodity prices are set to remain rather flat over the forecast horizon. Several factors lie behind the group forecast of a very modest price outlook for raw materials. Easy fundamentals – production overcapacity in the case of metals, recovering output in the case of food and agricultural raw materials – will hamper any bullish trend from happening. Besides, even if world economic prospects should gradually improve as of 2013, emerging economies GDP growth will remain below long term average. Finally, commodity prices are relatively high by historical standards, meaning that further increases would be difficult to bear by consumers.

# 1 General overview and assumptions

## 1.1 Recent developments in the world economy

Global economic growth slowed down in the first half of 2012. Economic expansion clearly lost pace in advanced economies, but growth rates in emerging economies are also substantially below the rates seen in previous years (see chart 1).

The primary reason for weak economic developments in industrialized economies appears to be the uncertainty associated with the crisis in the euro area and the remaining repercussions of the global recession in 2008/2009. In many countries, unemployment rates remain high and indebtedness of private and public households is reduced only marginally – if at all.

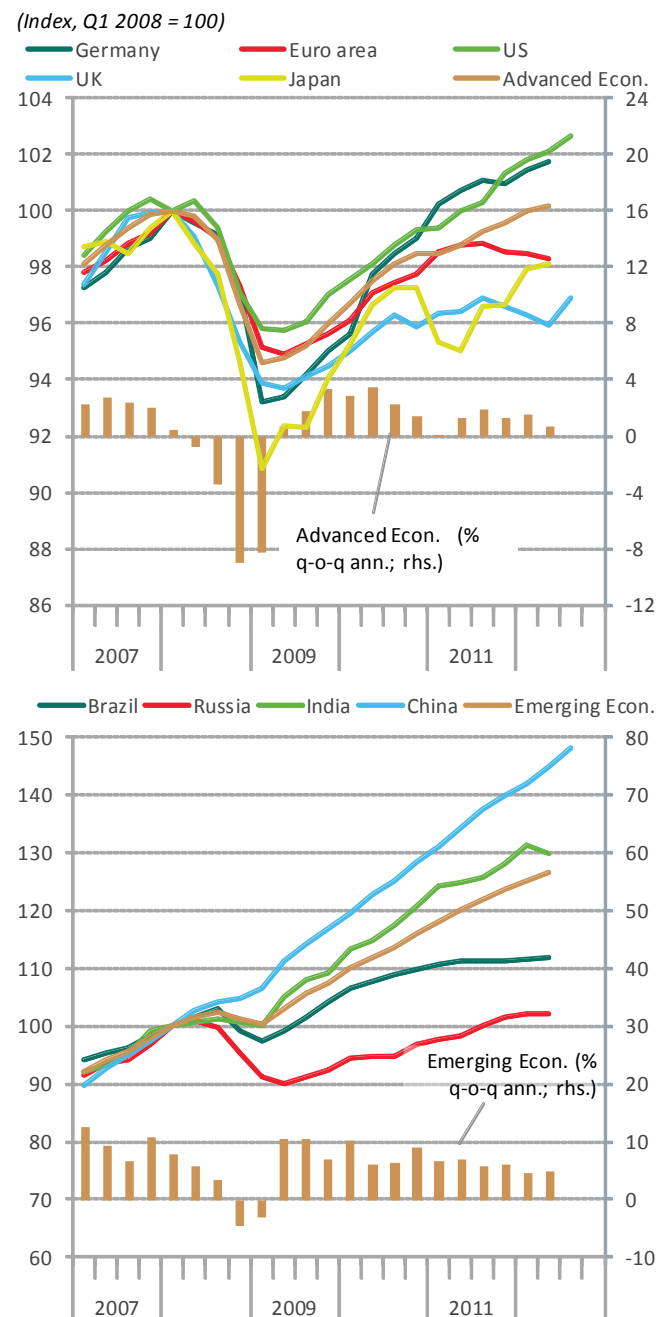
In emerging economies, intrinsic dynamics were not sufficient to generate domestic growth that would compensate for the weak demand from advanced economies. Increases of energy and food prices in the summer months contributed to weak domestic demand in emerging countries.

More recent indicators point to an acceleration of economic developments, primarily in emerging economies. As a response to the economic slowdown, policy has turned to a more expansionary stance in countries such as China and Brazil. This will stimulate growth in the second half of 2012. From 2013 onwards, increasing demand from emerging economies should also support growth in advanced countries.

A strong expansion in advanced economies is not likely, however. This is particularly the case for countries where the consolidation of public debt requires a more restrictive fiscal policy, such as the crisis countries in the euro area, but also the US or the UK.

Risks to global economic developments remain high. Continuous risks emerge in particular from an escalation of the situation in the euro area. On-going instabilities in the banking system of some member countries could still result in a systemic crisis of European and global financial markets. With the new ECB program and the installation of the permanent bailout funds, the financial market risks

**Graph 1: Real Gross Domestic Product**



Source: National authorities, DIW calculations.  
Last observation: Q3 2012.

and the risk of contagion effects between countries in case of an exit of a member country from the monetary union are substantially reduced, however. This is stabilising the financial market situation at least temporarily and results in a slightly friendlier environment for growth in the euro area.

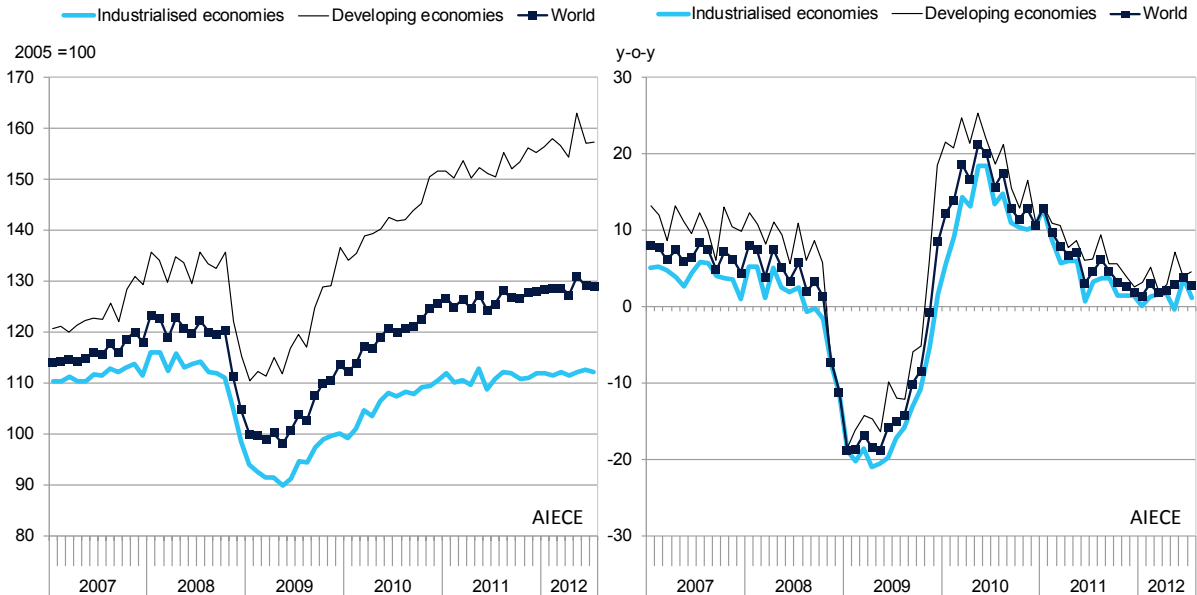
Another risk to global economic developments is emerging from fiscal policy in the US. The so called “fiscal cliff”, an automatic reduction of public expenditures and tax increases with a total volume of more than 4 per cent of GDP poses a substantial risk to growth in the US in 2013. While it is not likely that the full fiscal tightening scheduled under current law actually occurs next year, a sharp reduction of the fiscal deficit is to be expected. This will be a drag on growth in the US in the coming years.

A further risk to global economic developments emerges from energy and food prices. Regarding oil prices, even if market fundamentals are pointing downwards, as demand is slowing, various major bullish unknowns are still in place, notably the political tensions between Iran and Israel. Food prices should correct down partly after rallying over the summer months, but unpredictable supply tensions, mainly weather-related, could still push prices up, which are already at a historically high level. Finally, the increase of liquidity in financial markets in the wake of further expansionary monetary policy measures represents an additional upside risks to commodity prices, as investors can use this additional money to invest into commodity markets.

### 1.2 Recent trends in world trade

In line with weakening output, the volume of world trade has further decelerated in the first half of 2012 (see chart 2). Both the growth rate of trade in goods and services (national accounts) and the growth rate of merchandise trade have fallen substantially below the rates seen in the recovery of 2010 and 2011. A contraction has been avoided so far, however. In fact, in more recent months, a slight increase of trade growth is observable in the data with some elevated volatility in recent months, mostly stemming from highly volatile data on developing economies (namely China). As a broad pattern, trade of advanced countries was basically flat since early 2011, while trade of emerging and developing countries showed a weak but continuous expansion.

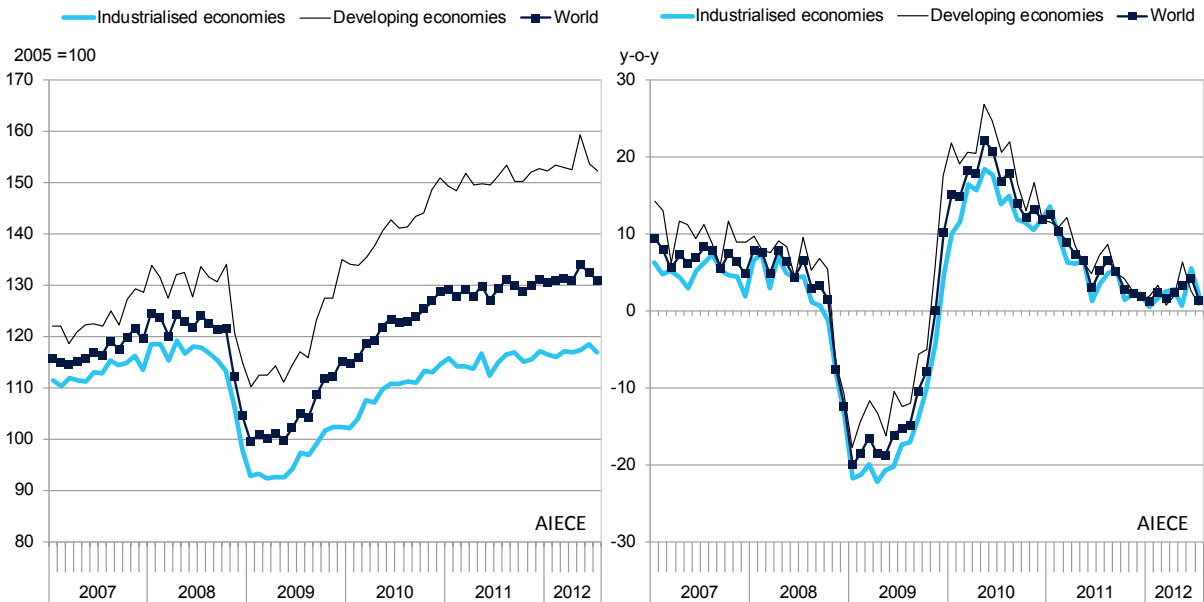
**Graph 2: World Trade**



Source: CPB.

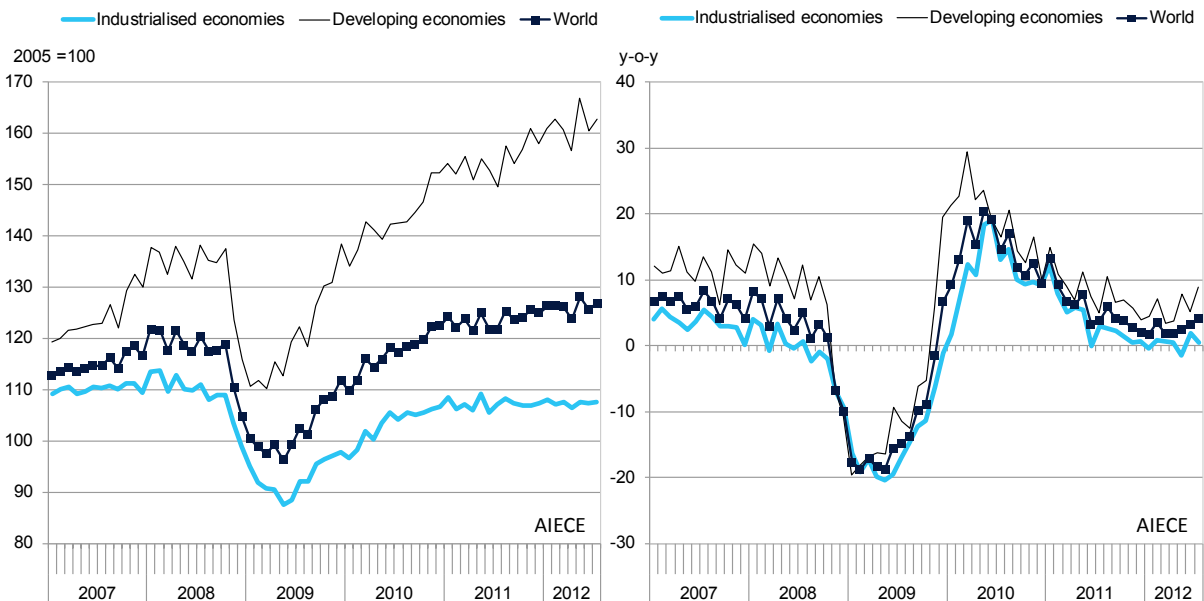
The most dynamic regions in terms of trade growth in the first half of 2012 were Middle East and Africa as well as the CIS countries, mostly reflecting a strong expansion of imports due to supportive oil revenues. Trade flows from and to the euro area declined in previous months. Imports were particularly weak in the euro area, while exports basically stagnated in the first half of 2012. As opposed to EU27, EU accession countries showed a substantial increase of trade based on surging exports in recent months. In Emerging Asia, the latest numbers indicate an increase of imports – possibly already reflecting a strengthening demand for raw materials and intermediate products in the course of production picking up more recently.

**Graph 3: World Exports**



Source: CPB.

**Graph 4: World Imports**



Source: CPB.

### 1.3 Main assumptions and forecast risks

In comparison with our spring forecast, the assumption for global growth has been revised down quite substantially. This is the case for our projection for growth in 2012 as well as – but even more pronounced – for our projection for growth in 2013 (*see table 1*). Accordingly, world trade in volume terms is now expected to expand less dynamically than projected in our previous report; with three per cent this year and below five per cent next year, trade growth is clearly below its long term average of six per cent per year between 1991 and 2011. In an environment of less dynamic global growth, commodity prices in US dollar terms are expected to soften over the forecast horizon.

The substantial revision to our projection is mostly due to a less optimistic projection for the euro area and the United States. In the euro area, growth will remain particularly weak in the crisis countries. On average, a pronounced recession with a decline of GDP by 0.4 per cent this year and a meagre expansion of 0.2 per cent next year is expected. In the US, next year's growth will be severely dampened by contractionary fiscal policy, on-going tensions on labour markets and high indebtedness of private and public households; the expansion is thus projected to remain below potential growth in 2013. In Japan, the effect of the post tsunami catching up process is strongly affecting this year's growth rate, but will fade next year. In China, growth will remain below the government's target growth rate of eight per cent this year, but will be stronger next year following the substantial policy stimulus measures to kick in in the second half of 2012.

The quarterly profile consistent with the annual averages displayed in our central forecast for world trade growth is a moderate expansion of world trade in the second half of 2012 and an acceleration of growth in 2013. Our forecast for world trade is roughly in line with the IMF's October projection as published in the most recent World Economic Outlook, which forecasts an expansion of world merchandise trade by 3.4 per cent in 2012 and 4.6 per cent in 2013.<sup>1</sup>

Many risks to this central scenario can be identified. As mentioned in section 1, the main risk to global output and thus trade developments is currently associated with increased financial market tensions, e.g. associated with the crisis in the euro area or the fiscal situation in the US. Further risks relate to the developments of commodity prices, notably in the context of political tensions in the Middle East.

**Table 1 – Main assumptions and world trade forecast**

	Spring 2012			Autumn 2012		
	2011	2012	2013	2011	2012	2013
	Annual changes in % (unless otherwise stated)					
<b>GDP volumes</b>						
United States	1,7	2,0	2,25	1,8	2,1	1,7
Japan	-0,7	1,75	1,5	-0,7	2,3	1,3
Euro Area	1,5	-0,25	1,25	1,5	-0,4	0,2
China	9,2	8,25	8,5	9,2	7,5	8,0
<b>Exchange rates (levels)</b>						
USD / Euro	1,38	1,30	1,30	1,39	1,28	1,29
Yen / USD	79,8	83,0	84,0			
<b>World trade prices (USD)</b>						
Crude oil (level, Brent, \$/b) (a)	110,6	120,0	118,0	111,3	110,7	103,3
Non energy primary commodities (a)	20,5	-8,0	6,0	18,1	-12,2	-2,2
<b>World trade volume of goods</b>	6,0	4,0	5,5	6,0	2,9	4,8

<sup>1</sup> The IMF's projection for US real GDP growth is 2.2/2.1 (2012/2013), Japan 2.2/1.2, Euro Area -0.4/0.2, China 7.8/8.2.

## Box 1: Some notes on the great trade collapse

By Roberta De Santis, Istat

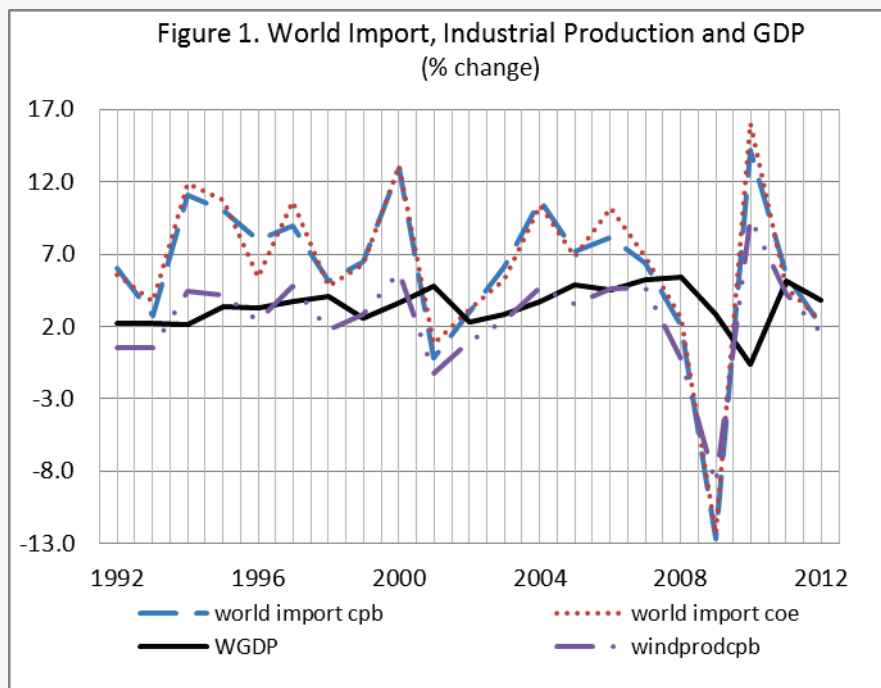
Trade linkages, which have been strengthened over the last twenty years by the growth of free trade, acted as the main channel of transmission of the world financial crisis during 2008-9. According to IMF estimates, trade in goods and services collapsed by 10.4% in volume terms in 2009, having decelerated in 2008 (3%, from 7.5% in 2007).

The contraction in global trade volumes during the crisis was associated with a decline in prices of similar magnitude (-11.4% in US dollars in 2009 according to IMF estimates). This is a not unexpected result as firms try to compress their margins in order to preserve market shares and consumers shift their demand towards cheaper products.

These developments, however, are surprising because they stand in contrast with past experience (Figure 1). The dynamics of trade in 2008–09 were conspicuous enough to become known as the “Great Trade Collapse”.

Several studies investigated various aspects of the much sharper fall in world trade compared to world output. An early analysis was presented in Baldwin (2009), which provided key statistics on the geographical and sectoral composition of trade flows during the collapse and an initial investigation of its causes.

This peculiar phenomenon generated a broad empirical and theoretical literature. Key explanations of the sharp fall of global trade during the crisis are: i) inventory adjustment (Alessandria et al 2010), ii) the drying up of trade finance (Amiti and Weinstein 2011), iii) the role of imported intermediate goods (Levchenko et al 2010) and iv) the compositional effects along the durable/non-durable goods dimension (Eaton et al 2011).<sup>2</sup>



Source: IMF, Coe Rexecode, CPB

<sup>2</sup> Reviews of this literature can be found in Baldwin (2009) and Bussière et al (2011).

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The latter shows that because certain product categories represent a greater share of trade than of output, a fall in demand for these products will result in a larger drop in trade than in output. Crises may lead to a greater fall in demand for goods than for services, for example, and most trade is in goods, whereas services account for the bulk of output. And within goods, durables form a larger share of trade than of output. The composition effect seems to explain much of the outsize drop in trade during the recent crisis. Unfortunately, the lack of comprehensive historical data on the composition of demand precludes a detailed investigation of this particular mechanism.

However, in a recent study (Bussière et al 2011), contribute to the debate by proposing a new measure of aggregate demand for empirical trade equations, based on two stylized facts and a theoretical foundation.

The first empirical observation is that a raw comparison of world trade and output ignores that the components of GDP have different import contents. The OECD Input-Output tables could provide the necessary information for computing the import content of GDP components. The remarkable blueprint is that for example the import content of government spending is lower than that of private consumption, which is lower than that of investment and exports. This holds on average across countries, but also for most individual countries. The fact that government spending has the lowest import content is not surprising, given that it generally includes goods or services that are not traded internationally, or for which there is a strong home bias. Similarly, the strong import content of exports can be explained by the internationalization of production chains (di Giovanni and Levchenko 2009).

The second empirical observation is that GDP components presented very different dynamics during recessions. GDP falls during recessions, but its components do not decrease by the same magnitude: investment is the most strongly affected, while government spending barely falls. Private consumption follows a somewhat intermediate path between these two extremes. Interestingly, real imports typically fall much more than GDP. Beyond these similarities, a key difference sets the last recession apart from previous episodes. Exports fell much more in 2008–09. Partly, this is due to the fact that the latest recession was truly global: if all countries' imports fall, then by definition all countries' exports must fall as well. However, the strong import content of exports highlighted above provides another explanation for the synchronicity of the fall in exports and imports.

Potential additional explanations to the trade collapse, which have been discussed in the context of the recent crisis, include the following:

i) Trade finance: Banking crises in particular are associated with a tightening of credit conditions—Abiad, Dell’Ariccia, and Li (2011) find that when a downturn is associated with a banking crisis, a “creditless recovery” becomes twice as likely. If the downturn is also preceded by a credit boom, the likelihood of a creditless recovery quadruples. Difficulty in obtaining credit may have deleterious effects on imports, above and beyond any effects weak credit might have on aggregate demand.

ii) Increased protectionism: In the aftermath of a crisis, interest groups that favor protecting domestic production may be strengthened. Increased protection need not come in the form of increased tariffs; it may also be manifest in increased use of antidumping measures and other forms of “murky protectionism,” such as clauses in stimulus packages that restrict spending to domestic producers.

iii) Exchange rate dynamics: Imports may be adversely affected by changes in both the level and the volatility of exchange rates. Kaminsky and Reinhart (1999) note that many banking crises are also associated with sharp depreciations of the currency; in such cases the swing in relative prices would

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hurt imports but boost exports. In addition, exchange rate variability may increase during crisis periods, and increased variability has been shown to adversely affect trade.

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## 2 The world trade outlook

### 2.1 Imports and domestic demand

World import growth is expected to be substantially weaker this year than it was during the recovery from the global recession. After global imports grew by 6.4 per cent in 2011, the expansion of imports in 2012 will slow down to a meagre 2.9 per cent in volume terms. For next year, we expect an acceleration of import growth to 4.7 per cent, still substantially below the long term average.

Imports of **advanced economies** will slow down from a growth rate of 4.9 per cent in 2011 to 1.4 per cent in 2012 and 2.9 per cent in 2013. With the exception of the UK, where the growth rate of imports remains effectively unchanged, we expect a deceleration of imports for all advanced economies in our sample this year. Slowing import dynamics reflect a general deceleration of economic activity after the exceptionally strong (stimulus driven) recovery after the global recession in 2010 and 2011. In addition, economic activity and domestic demand in many advanced countries continues to be affected by the long-term consequences of the economic breakdown in 2008/2009, such as high unemployment rates or continuously high private and public debt. Next year will see a slight acceleration in most advanced economies. For some important economies, however, we expect a further weakening of their imports dynamics. This includes Japan, where this year's import dynamics are still elevated due to the recovery and reconstructions efforts after the earthquake and tsunami disaster in early 2011 and where economic dynamics will return to more regular weaker dynamics next year. In the US, fiscal policy will be a drag on domestic demand and in particular on consumption next year, thereby dampening import dynamics.

The **euro area** as a whole will see contracting imports this year and only small gains in 2013. This year's declines are particularly pronounced in the crisis countries, where the on-going contraction of domestic demand results in a substantial reduction of imports, e.g. more than eight per cent in the case of Italy. But also other countries like Belgium, Finland and Slovenia should expect a decline of their import volumes this year; France will only see a small increase. More pronounced increases of imports are only to be expected in Germany and the Netherlands, where domestic demand is solid due to comparably good labour market conditions and investment keeps up due to favourable financing conditions. Next year, declines of imports continue in most crisis countries, but the rates of contraction will be less pronounced than in 2012, since the reduction of domestic demand weakens after years of contraction. Italy and Ireland are expected to see slightly positive growth rates of imports, in Ireland due to a stabilisation of demand and in Italy as a more technical bounce after the massive declines in 2012. In other euro area countries, rates of import growth will be positive next year, but remain fairly contained. A notable exception is Germany, where imports are expected to increase by close to six per cent in an environment of strong wage (and thus: consumption) growth and brightening investment conditions.

In **emerging economies**, imports follow a similar pattern with slowing dynamics in 2012 and an acceleration in 2013. We expect an average increase of imports by 4.6 per cent in 2012 and 6.8 per cent in 2013, after 8.1 per cent in 2011. As an exception to this general pattern, Africa and the Middle East are experiencing an acceleration of their import dynamics in 2012, mostly related to the relatively strong increases of oil revenues this year which support domestic demand. The slowdown of imports in 2012 is particularly pronounced in Emerging Asia, where China experienced a substantial weakening of domestic demand; consequently, import growth is expected to collapse from more than nine per cent in 2011 to 2.5 per cent in 2012. However, this is mostly due to declining imports in the first half of this year; following fiscal stimulus and a more expansionary monetary policy, we expect a

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modest recovery of domestic demand and imports in the second half of this and over the course of next year, pushing annual average import growth in 2013 back up to eight per cent. Following this pattern, import growth in Emerging Asia is cut in half this year, to 3.5 per cent, but is expected to recover up to seven per cent in 2013. A similar slowdown this year, albeit less pronounced, is expected for Latin America as well as Central and Eastern Europe. For Latin America, weakening revenues from (commodity) exports to China and the US is dampening domestic demand. Central and Eastern Europe is particularly affected by both the real economic implications (weak imports of crisis countries) and the financial market tensions emerging from the crisis in the euro area. Next year, import growth should recover in CEE countries, but the annual import expansion will remain substantially below its long time average.

**World import prices** in US dollar terms are expected to fall in 2012 and to increase in 2013. After the sharp increase of twelve per cent in 2011, world import prices should fall by one per cent in 2012. The decline of import prices this year is particularly pronounced in advanced economies, while emerging economies should see further (albeit small) increases. For 2013, despite globally loose monetary policy, only a mild increase of world import prices by one per cent is to be expected. Again, emerging economies should see a stronger increase of their import prices than advanced economies, but the gap can be expected to narrow sharply. For the euro area, this year's strong decline of import prices in US dollar terms will be more than compensated by the substantial depreciation of the euro vis-à-vis the US dollar. By assumption, the euro will depreciate by nine per cent against the dollar, resulting in an increase of euro-denominated import prices in the monetary union by two per cent. Next year, the increase of euro area import prices in domestic terms will be below one per cent.

## 2.2 Exports and price competitiveness

In 2012, a wide spread slowdown of exports is looming. In line with global imports, exports should accelerate next year, but not return to the rates of expansion seen in the recovery of 2010 and 2011. After global exports grew by six per cent in 2011, this year's growth rate will be slightly below three per cent. Next year will see an acceleration of global export growth to close to five per cent.

Exports of **advanced economies** are particularly affected by the slowdown, despite (dollar denominated) export prices of advanced economies declining strongly compared to export prices of emerging economies. Having seen an expansion rate of close to seven per cent in 2011, export growth of advanced economies is down to two per cent in 2012. Further, the recovery in 2013 is less pronounced than in emerging economies; we expect an expansion rate of four per cent next year. Among advanced economies, the decline of export dynamics is particularly pronounced in the euro area and other European economies. The UK and Sweden are expected to suffer a contraction of export volumes this year, despite quite pronounced declines of their relative export prices. Both countries are projected to experience a fairly pronounced recovery next year, however. The decline of export dynamics for the US economy is fairly contained this year; this is mostly due to a strong expansion of exports in the first half of 2012, while exports in the second half of 2012 and in early 2013 will remain weak. Japan is still recovering from the deterioration of exports following the tsunami and earth quake disaster in early 2012; thus, export dynamics are increasing over the projection horizon.

In the **euro area**, a broad based deceleration of export dynamics is projected for this year and only a modest recovery for 2013. Exports are particularly weak in the crisis countries; we currently do not project gains of competitiveness (i.e. decreasing relative export prices in euro terms) compared to the rest of the euro area. However, the competitiveness of the euro area as a whole is quite substantial,

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improving also the competitiveness of the crisis countries relative to the rest of the world. While euro-denominated export prices of the monetary union increase by close to two per cent, the depreciation of the euro results in a decrease of dollar-denominated export prices of the EMU by seven per cent. This is a substantially stronger reduction of prices than seen on the global level, where dollar denominated prices decline by one per cent this year. For next year, we currently do not project gains of competitiveness for the euro area as a whole; this limits the recovery of export volumes.

In **emerging economies**, export growth is also projected to decline this year compared to 2011. After an expansion rate of more than six per cent in 2011, growth of merchandise exports is falling to 3.5 per cent in 2012, before recovering to 5.6 per cent in 2013. The deceleration of exports is particularly pronounced in China, where weak demand from the euro area, the US and Japan is a drag on export growth. In contrast, in the CEE countries exports to the euro area remain fairly solid. This is due to a strong export performance of Russia, however, while the Eastern European EU member countries are strongly affected by limited export possibilities to the monetary union. Poland is a notable exception, stabilising its export performance based on a strong increase of competitiveness. Other emerging economies, such as the countries in Latin America as well as Africa and Middle East are projected to be able to keep up their export dynamics as well, despite relative increases of their export prices.

**Table 2 – Global changes in export market shares**

		<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Euro area (extra trade only)</b>	Export growth	6.6	2.1	3.7
	Foreign demand	6.6	4.0	5.3
	Export market share	<b>0.0</b>	<b>-1.9</b>	<b>-1.6</b>
<b>US</b>	Export growth	7.1	5.4	6.0
	Foreign demand	7.1	3.6	5.2
	Export market share	<b>0.0</b>	<b>1.8</b>	<b>0.8</b>
<b>Japan</b>	Export growth	0.6	1.5	4.5
	Foreign demand	6.7	3.5	5.6
	Export market share	<b>-6.1</b>	<b>-2.0</b>	<b>-1.1</b>
<b>Emerging Asia</b>	Export growth	7.1	2.6	5.9
	Foreign demand	6.1	3.6	4.1
	Export market share	<b>1.1</b>	<b>-1.0</b>	<b>1.8</b>
<b>China</b>	Export growth	9.8	2.5	7.0
	Foreign demand	6.4	3.5	5.0
	Export market share	<b>3.3</b>	<b>-1.0</b>	<b>2.0</b>
<b>Latin America</b>	Export growth	5.8	5.0	5.5
	Foreign demand	5.6	3.1	3.8
	Export market share	<b>0.2</b>	<b>1.9</b>	<b>1.7</b>
<b>C+E Europe</b>	Export growth	7.5	5.0	5.5
	Foreign demand	5.4	0.8	3.3
	Export market share	<b>2.1</b>	<b>4.2</b>	<b>2.2</b>
<b>Africa and Middle East</b>	Export growth	2.8	3.5	5.0
	Foreign demand	6.1	2.6	4.6
	Export market share	<b>-3.3</b>	<b>0.9</b>	<b>0.4</b>

Source: Working Group Calculations.

**Table 3 – Changes in export market shares in the euro area**

		<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Germany</b>	Export growth	8.7	3.5	5.0
	Foreign demand	5.7	1.5	3.7
	Export market share	<b>3.0</b>	<b>2.0</b>	<b>1.3</b>
<b>France</b>	Export growth	4.6	2.5	3.0
	Foreign demand	5.2	1.2	3.8
	Export market share	<b>-0.6</b>	<b>1.3</b>	<b>-0.8</b>
<b>Italy</b>	Export growth	7.8	0.0	2.0
	Foreign demand	5.9	2.3	4.0
	Export market share	<b>1.9</b>	<b>-2.3</b>	<b>-2.0</b>
<b>Spain</b>	Export growth	8.5	1.5	4.0
	Foreign demand	4.6	0.8	3.3
	Export market share	<b>3.9</b>	<b>0.7</b>	<b>0.7</b>
<b>Netherlands</b>	Export growth	4.0	4.0	3.5
	Foreign demand	5.9	1.2	3.7
	Export market share	<b>-1.9</b>	<b>2.8</b>	<b>-0.2</b>
<b>Austria</b>	Export growth	7.9	1.0	4.3
	Foreign demand	6.9	1.8	4.5
	Export market share	<b>1.0</b>	<b>-0.8</b>	<b>-0.2</b>
<b>Finland</b>	Export growth	1.9	0.0	2.5
	Foreign demand	6.5	2.3	4.2
	Export market share	<b>-4.6</b>	<b>-2.3</b>	<b>-1.7</b>
<b>Belgium</b>	Export growth	5.5	-0.5	2.5
	Foreign demand	5.6	1.7	3.6
	Export market share	<b>-0.1</b>	<b>-2.2</b>	<b>-1.1</b>
<b>Greece</b>	Export growth	4.0	2.0	4.5
	Foreign demand	6.4	1.8	4.3
	Export market share	<b>-2.4</b>	<b>0.2</b>	<b>0.2</b>
<b>Ireland</b>	Export growth	2.7	-1.0	4.0
	Foreign demand	4.7	1.3	3.1
	Export market share	<b>-2.0</b>	<b>-2.3</b>	<b>0.9</b>
<b>Luxembourg</b>	Export growth	12.3	-1.0	2.0
	Foreign demand	5.5	0.7	3.3
	Export market share	<b>6.8</b>	<b>-1.7</b>	<b>-1.3</b>
<b>Portugal</b>	Export growth	7.9	2.5	4.0
	Foreign demand	4.1	-0.1	2.2
	Export market share	<b>3.8</b>	<b>2.6</b>	<b>1.8</b>
<b>Slovenia</b>	Export growth	8.5	0.0	4.5
	Foreign demand	7.6	1.6	4.5
	Export market share	<b>0.9</b>	<b>-1.6</b>	<b>0.0</b>

Source: Working Group Calculations.

### 2.3 Market share developments

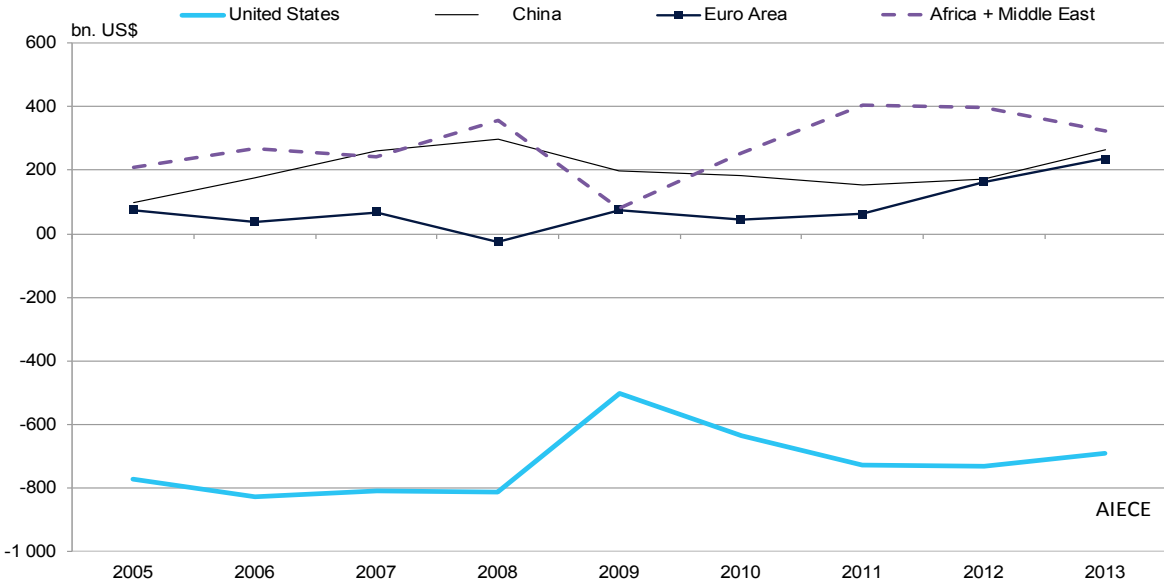
In 2012 and 2013, advanced economies will continue to lose market shares, despite on-going improvements in terms of competitiveness vis-à-vis emerging economies. A notable exception is the US economy, which is expected to substantially expand its market share both this year and next year. This is mostly related to the continued weakness of the euro area, which cannot benefit from the weaker euro exchange rate due to limited production possibilities. Among emerging economies, Latin America and the CEE countries can achieve the highest gains in terms of market shares. China, on the other hand, is projected to lose market shares this year, since strong increases of export prices in Renminbi (RMB) terms and – in addition – an appreciation of the exchange rate are projected to dampen this year’s external demand for Chinese exports. Next year, China will recover the market share losses it will see this year, thus further expanding its global economic importance.

Inside the euro area, adjustment of market shares remains limited over the forecast horizon, although this would be a key element of realignment in the euro area. While most crisis countries are now gaining market shares – Italy being a notable exception –, Germany and the Netherlands are recording much stronger gains for this year and, in the case for Germany, also for next year. The crisis country with the most pronounced gains in terms of market shares in our projection is Portugal, while Greece and Spain only record minor improvements in this regard. Ireland is losing market shares in 2012, but can partly recover in 2013. We expect some improvements for France’s market position this year, but a comparable loss of market share in the course of next year.

### 2.4 Trade balances

Our projections imply substantial changes of trade balances over the forecast horizon. Over the forecast horizon, we expect a slight decline of the US deficit and increasing surpluses of the euro area and China; in all cases mostly related to weak import dynamics. This is mirrored by a decreasing surplus the MENA region, where comparably solid domestic demand pushes up imports.

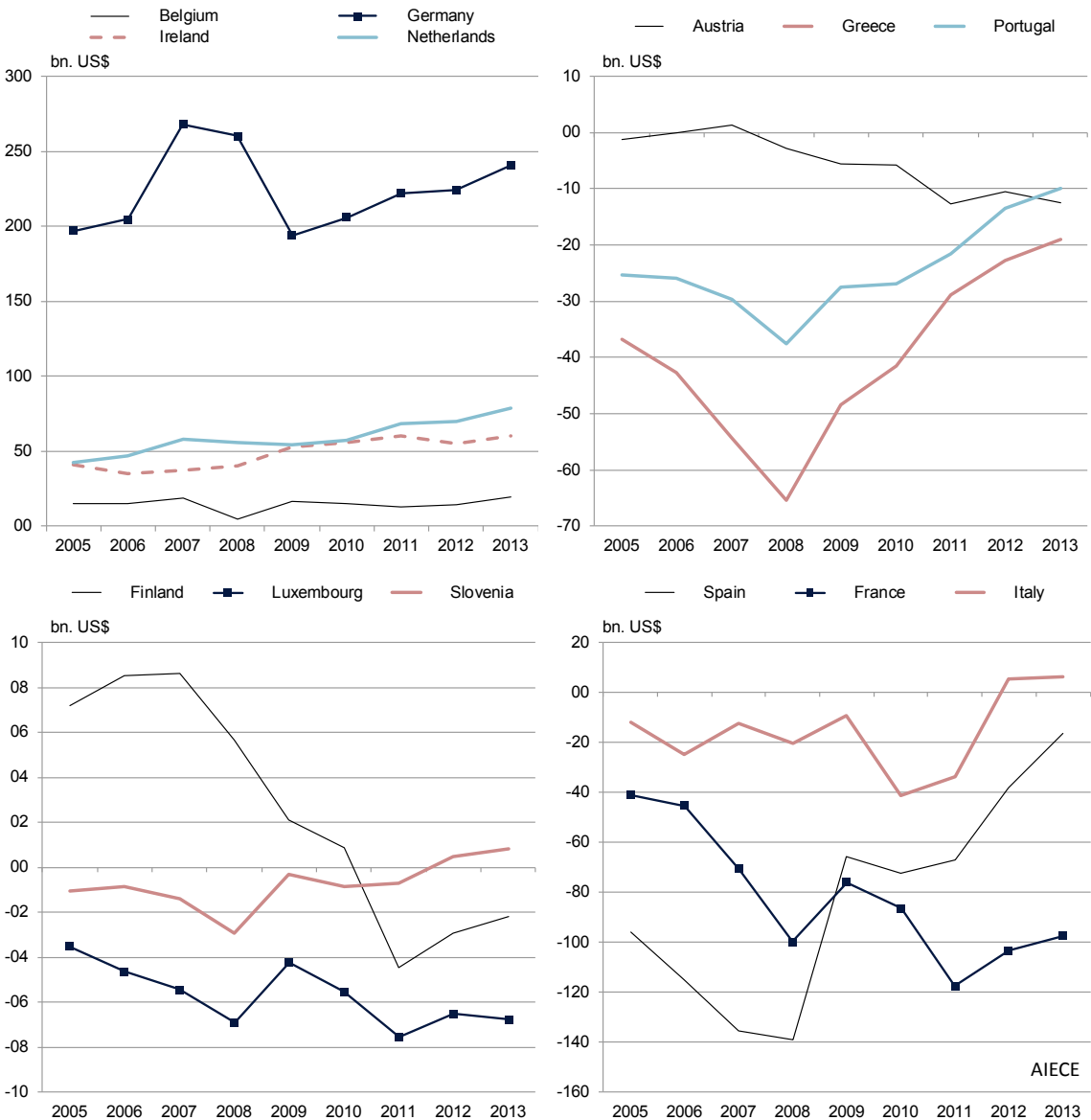
**Graph 5: Global trade balances**



Source: CPB, AIECE working group forecasts.

For the euro area, our projection implies some rebalancing. In the crisis countries, trade deficits continue to decrease strongly – mostly due to collapsing imports, not because of strengthened exports, however. France is also projected to move closer towards balanced net exports. We also expect a further expansion of net trade in the surplus countries and in particular in Germany, however. Thus, our projection does not imply an internal rebalancing in the euro area, but rather an increase of the trade surplus of the euro area as a whole.

**Graph 6: Trade balances in the euro area**



Source: CPB, AIECE working group forecasts.

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## 3 Commodity price outlook to mid-2014

### 3.1 Recent price developments

After the rather strong decline registered in late 2011 and early 2012, world commodity prices generally stabilised in the third quarter of 2012. But the aggregate price movement hides sharp differences between the various commodity groups. Among non-energy commodities, industrial raw materials prices decreased rather significantly, especially ferrous metals and textile fibres, driven by stalling economic growth in China and the US and recession in the euro area, as well as increasing supplies in many cases. On the opposite, food prices rallied, notably cereals and oilseeds, as the US calamity drought during the summer damaged crops. In the group of energy raw materials, crude oil prices remained unchanged in the third quarter of 2012. Indeed, after large drops in May and June, oil prices bounced back in July. Oil prices were supported by several events during the summer, including the Norwegian strike, the embargo on Iranian oil that came into force on July 1<sup>st</sup> and political measures implemented by governments to support the economy.

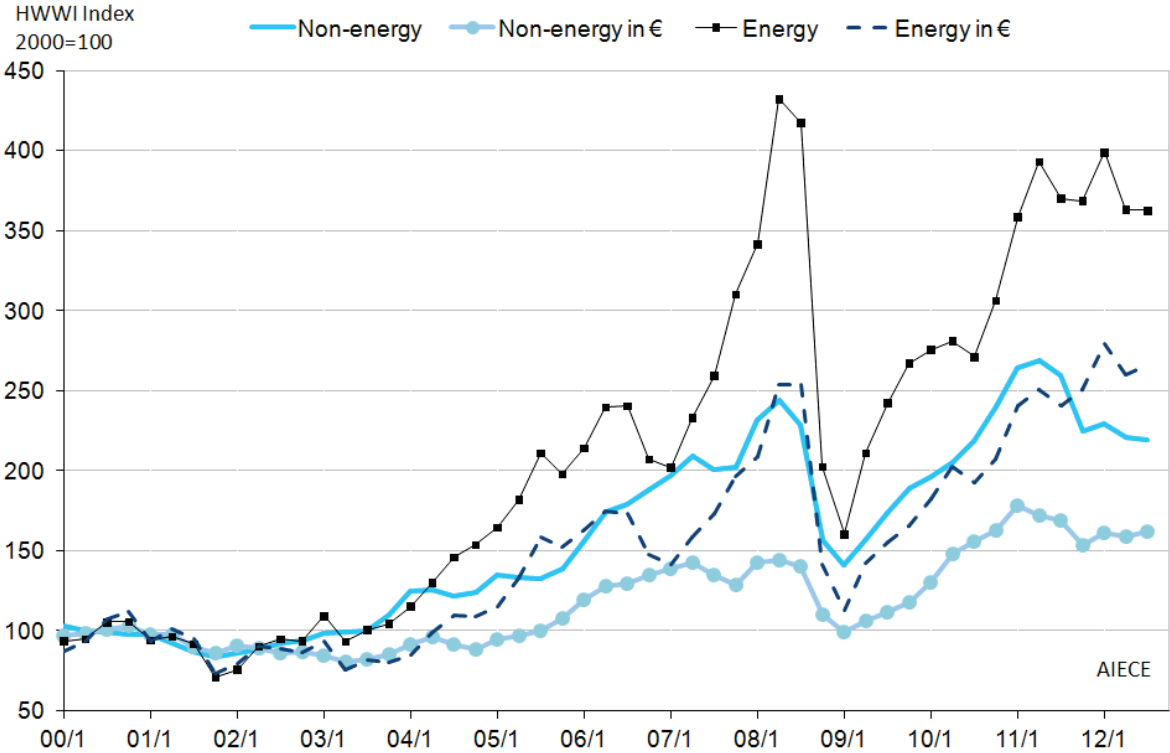
In a still weakening macroeconomic environment (in the emerging as well as in the advanced economies), policymakers appeared increasingly favorable to provide additional expansionary measures to counteract slowing economic growth. In the US, the long awaited Bernanke's speech in Jackson Hole eventually led to a third round of quantitative easing (QE3). In China, the weakening of the main indicators of economic activity and the sliding of GDP growth below the target paved the way for new expansionary efforts by Beijing authorities : a 1-trillion RMB (U.S. dollar 157 billion) of public investment stimulus was approved in early September. A solution for the sovereign debt issues in the European peripheral economies is still far from being reached, and the economic situation continued worsening in the past months. Yet, tensions that in the early summer appeared close to the point of no return now seem somehow contained. Mario Draghi's declaration in late July about the irreversibility of the euro was followed by the launch of the Outright Monetary Transactions (OMT) program in early September, whereby the ECB will purchase government bonds on the secondary market up to three years without limits. Other stressful events in the euro area sovereign debt markets can not be dismissed, but the risk has considerably relaxed in the near-term thanks to the ECB's announcements.

Generally speaking, global markets have been and are still affected by a considerable amount of uncertainty. But the search for a solution – through public expansive operations, conventional and unconventional – to the growth problems in the major economies appears increasingly concrete. These progresses are behind the renewed appetite for risky assets from financial investors, including oil, observed in the summer months. Between June and September, the price of crude oil thus increased again from 96 U.S. dollars to over 110 U.S. dollars per barrel Brent, or an 18 per cent increase in three months. Since mid-September, the price has been hovering around 110 U.S. dollars per barrel. Other energy prices, namely coal and natural gas prices, have stabilised. Even if the general picture for many commodities, notably industrial raw materials, is that of a well-balanced (if not in surplus) physical market, brightened growth prospects, notably in China, the looming increase of liquidity in the markets as well as unpredictable but temporary supply tensions pushed many industrial commodities prices up in September. In particular, the Indonesian export restrictions on unprocessed minerals caused non-ferrous metals to rebound. After surging in July, food prices decelerated slightly in August before stabilising in September, as the full extent of the crop damage caused by the US drought was accounted for.



Commodity prices are still below the peaks reached in summer 2008 in the U.S. dollar terms. In the third quarter of 2012, according to the HWWI index, the average prices of all commodities were 15 per cent lower than in the peak of the second quarter of 2008. However, this reflects mainly movements in energy prices, given the dominant weight of crude oil in the global price index (75 per cent, *see Appendix table 21*). In the third quarter of 2012, non-energy commodity prices were 10 per cent below the peak level of the summer 2008 (but 18 per cent lower than the recent record high seen in early 2011). Energy prices, on the other hand, were 16 percent below the summer 2008 record level. In Euro terms, both energy and non-energy raw materials prices are now above the 2008 peak: 5 per cent higher for energy prices and 12 per cent higher for non-energy prices. Indeed, the 2008 peak was less marked in terms of Euro due to a more favourable exchange rate for the European currency against the U.S. dollar at that time.

**Graph 7: World Commodity Prices in US \$ and in Euro**



The previous forecast by the group, made in April 2012, underestimated the decline in commodity prices in the second quarter of 2012 in the commodity groups of energy raw materials and non-ferrous metals. A larger than expected decline in oil prices was due to weaker than expected oil demand and ongoing high oil production in the OPEC countries. Likewise, the industrial raw materials decline was more pronounced than forecast due to weak Chinese economic demand. The group forecast for the third quarter of 2012 was quite accurate on an aggregate level. Crude oil prices stabilised as expected, but our food prices forecast differed rather strongly from the actual development (*see table 4*) due to the unforeseeable effects of changing supply outlook caused by the severe drought in the US in the summer. Finally, in the group of industrial commodities, the price of ferrous raw materials declined very strongly, reflecting the surprisingly slow growth in Chinese demand.

**Table 4 – Spring 2012 commodities price forecasts and realisations**

	USD terms				EUR terms			
	2012 Q2		2012 Q3		2012 Q2		2012 Q3	
	<i>Forecast</i>	<i>Actual</i>	<i>Forecast</i>	<i>Actual</i>	<i>Forecast</i>	<i>Actual</i>	<i>Forecast</i>	<i>Actual</i>
	Quarterly changes in %							
All commodities*	3	-8	-3	0	4	-6	-3	2
Total excl. energy	1	-4	1	-1	1	-1	1	2
Food total	2	-1	2	14	3	2	2	16
Cereals	2	-3	2	25	3	-1	2	28
Tropical beverages, sugar	-2	-12	0	1	-1	-9	0	4
Oilseeds, vegetable oils	6	12	3	15	7	15	3	18
Industrial raw materials	1	-5	1	-7	1	-2	1	-5
Agricultural raw materials	1	-1	0	-7	3	2	0	-5
Non-ferrous metals	1	-8	3	-3	2	-6	3	0
Ferrous raw materials	1	-2	-2	-16	3	0	-2	-14
Energy raw materials	3	-9	-3	0	4	-7	-3	2
Exchange rate USD / Euro	1,35	1,28	1,35	1,25				
* HWWI index, total								

## Box 2: Historical decomposition of price fluctuations with VAR-models

By Ferdinand Fichtner<sup>3</sup>

Commodity prices, such as food and energy prices, have seen strong increases in the summer months. While reasons for these price developments are widely discussed in the literature and in this report, it can be difficult to assess the quantitative influence of different explanatory variables on price changes seen in historical data. This box presents an econometric method to assess influences like these and suggests a helpful communication device based on this method.

Several reasons for the strong increase of cereal and oil prices seen in July 2012 could be imagined. Among those reasons are demand side aspects such as increased demand from speculative investors (in the context of excessive liquidity provision by the central banks) or – not overly likely in the current situation – real economic developments in emerging and industrialized countries. On the other hand, supply side arguments such as bad harvests affecting food prices or conflicts in the Middle East affecting oil prices are regularly considered.

For purely expositional purposes, consider the following simple VAR model to assess the influence of industrial production on oil prices:

$$oil_t = c_1 + \alpha_{11}oil_{t-1} + \alpha_{12}ip_{t-1} + \varepsilon_t^{oil}$$

$$ip_t = c_2 + \alpha_{21}oil_{t-1} + \alpha_{22}ip_{t-1} + \varepsilon_t^{ip}$$

Estimating this model returns time series of the residuals  $\varepsilon_t^{oil}$  and  $\varepsilon_t^{ip}$ , respectively.<sup>4</sup> By solving the model, we can re-simulate historical price developments if we use the residuals of the equation as exogenous driving forces (“add factors”). Using both residuals simultaneously for the solution returns exactly the left-hand-side variables of the model. What we are interested in is to decompose the

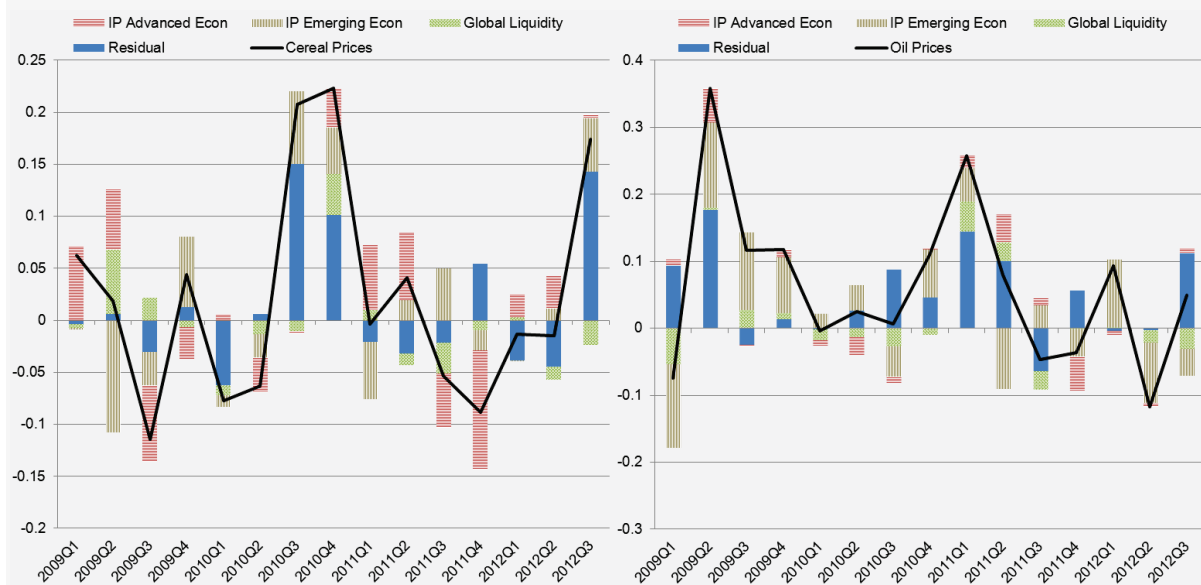
<sup>3</sup> An EViews program is available upon request from flichtner@diw.de.

<sup>4</sup> In a standard setup, the residuals will typically be correlated. To take into account this contemporary link between variables when simulating the model requires a Cholesky (or other structural) decomposition of the residuals’ matrix.

developments of  $oil_t$ , however. This is done by simulating the model separately for each residual series, setting the respective other residual to zero. As a result, we obtain a series  $oil_t^{ip}$  that is driven exclusively by the (historical) developments of  $\varepsilon_t^{ip}$ , and a series  $oil_t^{oil}$  that is driven by the developments of  $\varepsilon_t^{oil}$ . That is: we can use the model to isolate the influence of shocks to industrial production ( $\varepsilon_t^{ip}$ ) and the influence of “unexplained shocks” (here:  $\varepsilon_t^{oil}$ ).<sup>5</sup> Note that summing up  $oil_t^{ip}$  and  $oil_t^{oil}$  returns  $oil_t$  due to the linear nature of the model.<sup>6</sup>

Based on this concept, we estimate a VAR that captures some of the influences on food and oil prices mentioned above. Specifically, we estimate a VAR based on oil or cereal prices, global liquidity (a GDP-weighted average of M2 in the US, the UK, euro area and Japan), and industrial production in advanced emerging economies.<sup>7</sup> Thus, we try to capture the demand side influences on commodity prices in explanatory variables, leaving the impact of supply side aspects as unexplained variation.

Our results (see the chart below) indicate that the recent increases in oil and cereal prices are mostly due to these unexplained influences. While our models are generally able to explain large parts of the variation in cereal and oil prices, a large unexplained residual remains for both price indicators in the third quarter of 2012. This could indicate that bad harvests (in the case of cereal prices) or political tensions in the Middle East (in the case of oil price) might indeed be the explanation for the steep increase of prices this summer. In the case of oil prices, supply sided factors on prices were partly compensated by weak global demand (proxied by industrial production).



## Reference

Burbidge and Harrison (1985), An historical decomposition of the great depression to determine the role of money, *Journal of Monetary Economics*, Vol. 16, pp. 45-54.

<sup>5</sup> Contemporary links between variables as identified by the Cholesky decomposition need to be taken into account.

<sup>6</sup> See also Burbidge and Harrison (1985) for a technical and more detailed description of the approach – employed in a different context.

<sup>7</sup> All variables are taken in quarter-on-quarter changes (month-on-month is too volatile), industrial production is seasonally adjusted. We include three lags of the endogenous variables in our model, the Cholesky ordering of variables is M2 / IP\_EM / IP\_AD / PRICE.

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## 3.2 General price outlook for aggregate commodities

On average, the future development of commodity prices is reflecting poor demand prospects and abundant supplies, which will drive prices down in 2012 after a recent spike in 2011. The abundant supply outlook in many cases reflects the high level of commodity prices in 2011, which triggered investments in commodity production. This year, the drop in prices will be particularly marked for industrial raw materials (metals and natural fibres). Within food products, cereals and oilseeds prices rallied over the summer as bad weather conditions, notably the US calamity drought, darkened crop and harvest outlook. Within energy raw materials, coal prices are set to tumble in 2012, but natural gas prices should go on rising, following crude oil prices with a lag. Crude oil prices are expected to remain firm. As of 2013, under the working group assumptions, the global economy should gradually improve. However, commodity prices are set to remain quite stable over the next two years. Easy fundamentals, notably in the case of metals, will hamper any bullish trend from happening. Besides, emerging economies' economic growth, though firming up, will still be below past years average. Furthermore, commodity prices remain relatively high by historical standards, notably that of food and energy raw materials.

The aggregate prices of commodities, measured with the dollar-based total HWWI index, are set to decrease by 3 per cent in 2012, following two consecutive years of steep rise after the Great Recession in 2008-2009 (+29 per cent in 2011 as well as in 2010, *see table 5*). As mentioned before, these movements reflect mostly that of crude oil prices, given the high weight of this commodity. However, average prices of all commodity sub-groups will decrease this year, with the exception of cereals and oilseeds. The decline in prices will be particularly steep for textile fibres after the record cotton prices in 2011, for coal prices, due to slower Chinese demand growth and larger supplies (e.g. recovery in Australian production) and for tropical beverages, due to the large price fall already registered in the first half of 2012 in the wake of weaker demand and improved supply prospects. All metals prices are set to fall by between 10 per cent and 15 per cent, in line with production overcapacity. Next year raw materials prices should decline further (-6 per cent). Textile fibres, oilseeds, ferrous raw materials and crude oil prices are projected to register a rather strong fall on an annual average. Prices, however, will generally start stabilising during the year. Other commodity prices are set to remain rather flat or to decrease only slightly.

### Box 3: Fixed asset investment stimulus and Chinese commodity demand

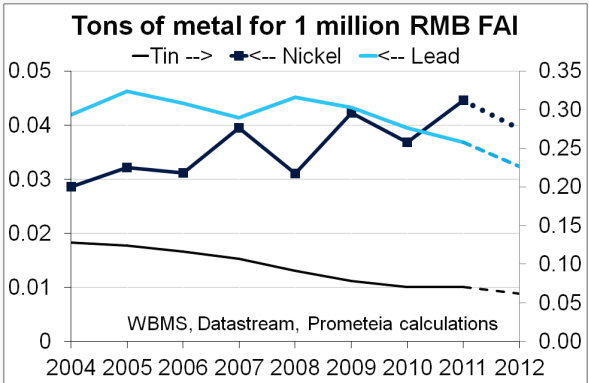
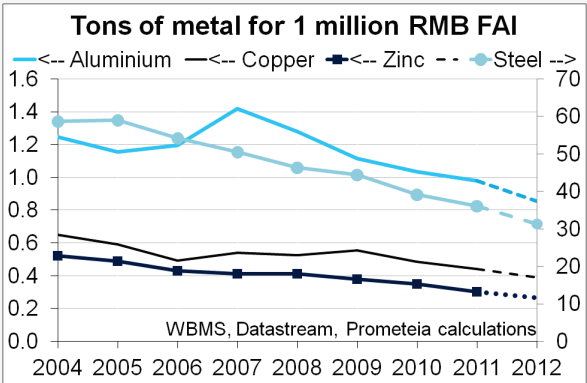
By Federico Ferrari, Prometeia

The 4 trillion RMB investment plan launched in 2009 to counter the effects of the global crisis gave birth to one of the most unbalanced – and inflationary – growth in Chinese history. Moreover, as the core of this plan was to push up the fixed asset investments (FAI) growth, it definitely gave birth to an astonishing surge in industrial commodity demand. According to the World Bureau of Metal Statistics, between 2009 and 2010, almost every base metal experienced a 20 per cent to 30 per cent demand rise from China. As for most raw materials, global supply struggled to meet the increase in consumption, so that the stimulus plan triggered a new extra-ordinary price run. The early 2009 lows were rapidly left behind, and most commodity prices (especially the most exposed to supply side issues: copper, rubber...) reached new highs.

In recent months, however, Chinese economy experienced a sharp deceleration. Lower export volumes towards advanced economies, and more specifically towards Europe (mostly due to the ongoing

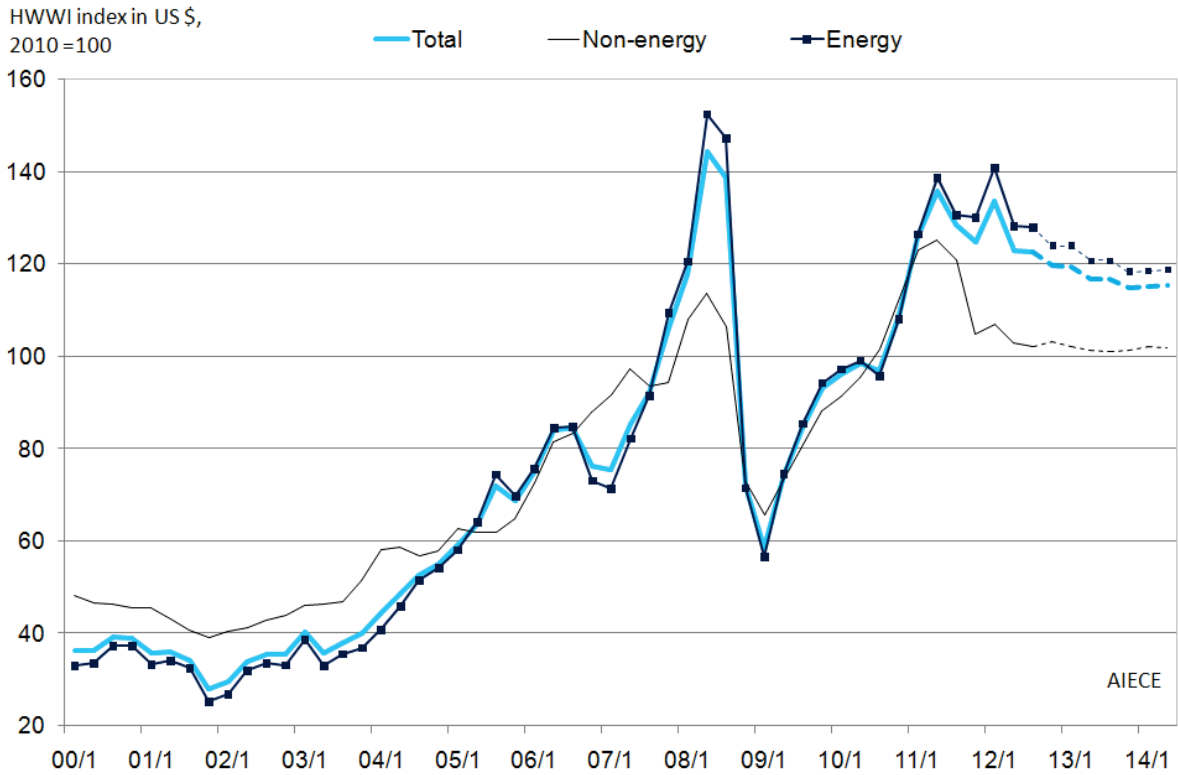
sovereign debt crisis), combined with the government efforts to deflate the construction bubble, are among the factors which led the GDP growth rate to fall. In order to offset the effects of this second dip, Beijing choice was – on a lower scale – the same as that of 2009. Indeed, irrespective of the massive problems that the previous plan had created a new 1 trillion RMB FAI plan was announced in early September. Well aware of what happened in 2009, traders and investors reacted enthusiastically; just a few days after the announcement, copper prices were already traded 9 percentage points above the late August value. However, this time, we don't expect that in the coming months commodity prices will experience a substantial rise as a consequence of this stimulus.

Things are indeed different this time and not only because, compared to 2009, commodity prices are by far higher (meaning that further increases are harder to be borne by consumers) or because the recently announced stimulus plan is 75 per cent lower in volume terms (1 trillion RMB against 4 trillion). The basic point is that the Chinese Fixed Assets material intensity (measured as volumes of additional raw materials for unit of FAI, constant 2000 LCU prices) is much lower, now, than it was in 2009. Again on the copper case: the China copper consumption-to-investment ratio stood at 0.52 in 2008, implying that four years ago, every single million RMB invested in fixed assets generated an extra demand of 0.52 ton of copper in China. The same ratio in 2010 only stood at 0.48 – i.e. China was demanding 40 kilos of copper less for every million of FAI, compared to 2 years before. Today (2012 average) we estimate this ratio at 0.38: the same money invested in FAI now generates around 70 per cent of the additional demand which it used to create in 2008. Other metals, e.g. steel, experienced a comparable fall in FAI intensity over the same period. The only exception is nickel, the intensity of which is now 25 per cent higher than it was in 2009.

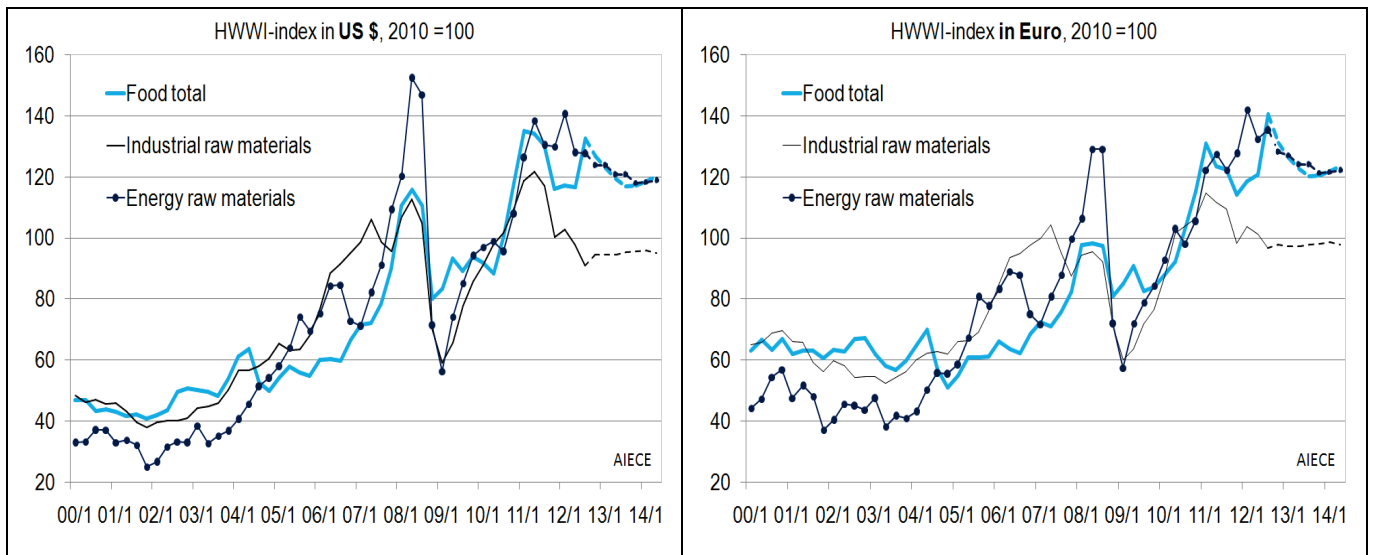


Detecting the reason behind this phenomenon is an open issue; however, technological progress combined with rising costs pressures are probably the most relevant factors explaining the rise in material efficiency experienced in Chinese infrastructural and machinery building activities. This doesn't mean that the Chinese material intensity – as a whole – will necessarily fall in the future. Indeed, fixed assets investments are just one component of GDP: in order to measure the total material intensity (calculated as the total amount in volume terms of commodities used to produce one unit of GDP) we should consider the impact on the overall economy. What is more clear, however, is that the impact of any future stimulus directed to FAI will probably have a comparatively lower impact on Chinese commodity demand growth in the coming years. This is the reason why, even keeping all the relevant factors (price level and stimulus amount) constant, this last stimulus would anyway result in a lower demand rise compared to what we saw in 2009.

**Graph 8: Aggregate price development up to mid-2014**



**Graph 9: Price forecast for commodity groups in US \$ and in Euro**

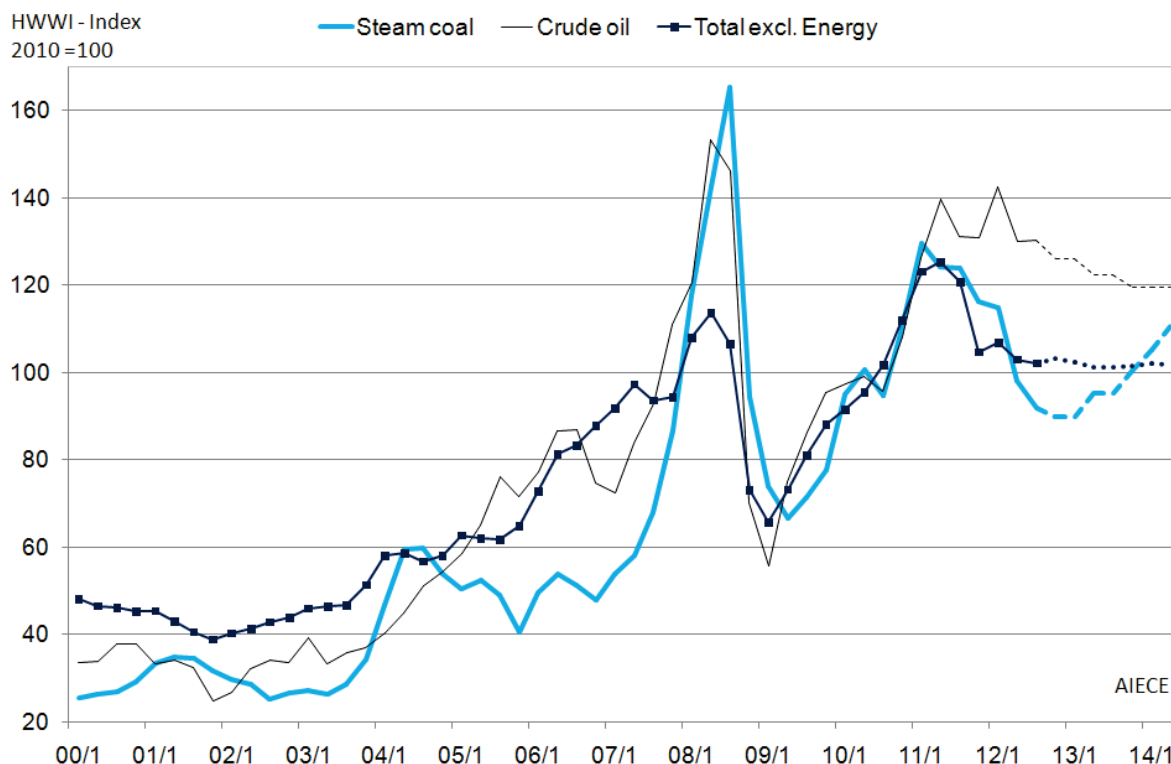


**Table 5 – Aggregate commodity price development 2010-2013**

<b>Commodity indices in US\$ terms</b>	2010	2011	2012	2013
Index values 2010=100 and % change				
<b>All commodities</b>	<b>100</b>	<b>129</b>	<b>125</b>	<b>117</b>
	<i>29</i>	<i>29</i>	<i>-3</i>	<i>-6</i>
<b>Total excl. energy</b>	<b>100</b>	<b>118</b>	<b>104</b>	<b>101</b>
	<i>30</i>	<i>18</i>	<i>-12</i>	<i>-2</i>
<b>Food total</b>	<b>100</b>	<b>129</b>	<b>123</b>	<b>119</b>
	<i>11</i>	<i>29</i>	<i>-4</i>	<i>-3</i>
<b>Industrial raw materials</b>	<b>100</b>	<b>114</b>	<b>97</b>	<b>95</b>
	<i>39</i>	<i>14</i>	<i>-15</i>	<i>-2</i>
Agricultural raw materials	100	111	93	91
	<i>34</i>	<i>11</i>	<i>-16</i>	<i>-2</i>
Non-ferrous metals	100	112	97	98
	<i>37</i>	<i>12</i>	<i>-14</i>	<i>2</i>
Ferrous raw materials	100	125	102	93
	<i>48</i>	<i>25</i>	<i>-18</i>	<i>-9</i>
<b>Energy raw materials*</b>	<b>100</b>	<b>131</b>	<b>130</b>	<b>121</b>
	<i>28</i>	<i>31</i>	<i>-1</i>	<i>-7</i>
Crude oil	100	132	132	123
	<i>28</i>	<i>32</i>	<i>0</i>	<i>-7</i>
<i>Memorandum</i>				
<b>Indices in euro terms</b>	2010	2011	2012	2013
<b>All commodities</b>	<b>100</b>	<b>122</b>	<b>129</b>	<b>120</b>
	<i>36</i>	<i>22</i>	<i>5</i>	<i>-7</i>
<b>Total excl. energy</b>	<b>100</b>	<b>112</b>	<b>107</b>	<b>104</b>
	<i>37</i>	<i>12</i>	<i>-5</i>	<i>-3</i>
<b>Food total</b>	<b>100</b>	<b>123</b>	<b>128</b>	<b>123</b>
	<i>17</i>	<i>23</i>	<i>4</i>	<i>-4</i>
<b>Industrial raw materials</b>	<b>100</b>	<b>109</b>	<b>100</b>	<b>98</b>
	<i>47</i>	<i>9</i>	<i>-8</i>	<i>-2</i>
Agricultural raw materials	100	105	96	94
	<i>42</i>	<i>5</i>	<i>-9</i>	<i>-2</i>
Non-ferrous metals	100	107	100	101
	<i>45</i>	<i>7</i>	<i>-6</i>	<i>1</i>
Ferrous raw materials	100	119	106	95
	<i>57</i>	<i>19</i>	<i>-11</i>	<i>-10</i>
<b>Energy raw materials*</b>	<b>100</b>	<b>125</b>	<b>135</b>	<b>124</b>
	<i>36</i>	<i>25</i>	<i>8</i>	<i>-8</i>
Crude oil	100	125	137	126
	<i>36</i>	<i>25</i>	<i>9</i>	<i>-8</i>
* Steam coal and crude oil				

### 3.3 Outlook for energy raw materials

**Graph 10: Energy raw materials price forecast**



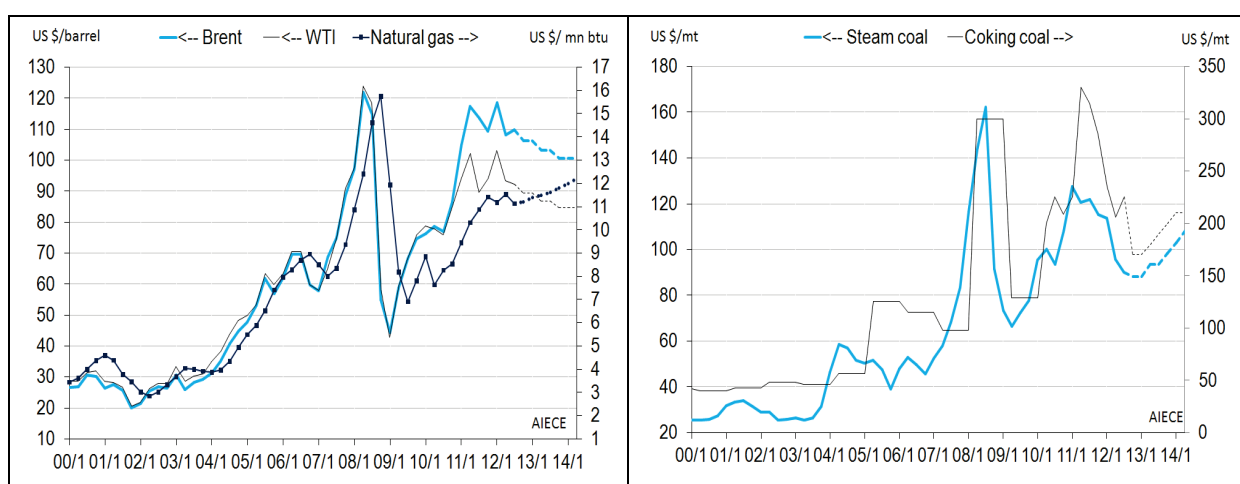
**Table 6 – Energy raw materials price forecast (index in US \$ terms, 2010=100)**

Commodity	11/3	11/4	12/1	12/2	12/3	12/4	13/1	13/2	13/3	13/4	14/1	14/2	2010	2011	2012	2013
<b>Energy raw materials*</b>	<b>131</b>	<b>130</b>	<b>141</b>	<b>128</b>	<b>128</b>	<b>124</b>	<b>124</b>	<b>121</b>	<b>121</b>	<b>118</b>	<b>119</b>	<b>119</b>	<b>100</b>	<b>131</b>	<b>130</b>	<b>121</b>
	-6	0	8	-9	0	-3	0	-2	0	-2	0	0	28	31	-1	-7
Crude oil	131	131	142	130	130	126	126	122	122	119	119	119	100	132	132	123
	-6	0	9	-9	0	-3	0	-3	0	-2	0	0	28	32	0	-7
Steam coal	124	116	115	98	92	90	90	95	95	100	105	110	100	123	99	95
	0	-6	-1	-14	-6	-2	0	6	0	5	5	5	38	23	-20	-4
Coking coal	165	149	123	108	118	89	89	94	100	105	110	110	100	151	110	97
	-5	-10	-18	-12	9	-24	0	6	6	5	5	0	11	51	-28	-11
Natural gas	131	137	135	139	134	135	137	138	139	142	144	147	100	126	135	139
	6	5	-2	3	-3	1	2	1	1	2	2	2	-5	26	7	3

\* Crude oil and steam coal only



**Graph 11: Energy raw materials price forecast (crude oil, natural gas and coal)**



### 3.3.1 Crude oil

#### Recovering oil prices during the summer...

The summer months saw a reversal of the trends that led to the **crude oil** prices fall observed in April and May. The strikes that hit many Norwegian platforms from June 18<sup>th</sup> to July 9<sup>th</sup> (cutting around 10 per cent of the country's oil production), an intense hurricane season in the Gulf of Mexico (with the Isaac tempest), the European embargo on Iranian oil that came into force on July 1<sup>st</sup> lie behind the recovery in oil prices during the summer. Yet, the tightening of the global oil balance was widely expected and anyway lower than that observed in the same period of 2011. The recent price increase masks in fact a still comfortable situation from a fundamental point of view, despite some seasonal and temporary difficulties. We thus believe that the reason for the very recent price increase should not be searched only in the above-cited tensions on the supply side. But rather in the awaited expansionary maneuvers (the public investments stimulus in China), the massive inflow of liquidity in financial markets (through the QE3 in the US and the ECB OMT program) as well as renewed geopolitical tensions in the Middle East that prompted speculators to raise their bets on higher prices. Data from the CFTC showed that from early July onwards speculators have continued to significantly expand their net long positions. After trading below 100 U.S. dollars per barrel in June, the Brent price subsequently rose above this threshold in mid-July and continued its upward movement in August; oil price fluctuated between 110 and 115 U.S. dollars per barrel for the most of September.

#### ... despite weak demand prospects

Statistics regarding 2012 third quarter oil products demand highlight the substantial lack of a solid trend behind consumption growth. The peak in consumption observed in the summer months in major consumer countries appears linked to temporary factors, such as temperatures above average observed in the Northern Hemisphere. The global oil consumption picture continues to show the "historical" dichotomy between emerging economies which, albeit at a slower pace, keep on posting positive growth rates, and advanced economies, whose demand for crude oil has instead continued to lose ground in the summer months. Even in the latter, however, the scenario is not homogeneous. In the US, the economic slowdown and high prices at pump depressed the fuel demand until the early summer, when (probably due to the temporary fall in oil price) the US oil demand eventually stabilized. Given the group's very modest outlook for the US economy, US oil demand isn't expected

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to recover towards the last two years average, at least in the forecast horizon. A much more pronounced fall characterized the European oil consumption, due to a comparatively worse macroeconomic environment and a more pronounced decline of its oil intensity. OECD consumption – albeit at less intense rates – should continue losing ground throughout the forecast horizon, partially offsetting the rise we expect from emerging countries. The emerging world confirms its driving role for global oil demand growth, even if there are clear signs of moderation in the recent months. Following a positive start in early 2012 (mostly driven by strategic restocking), Chinese oil demand subsequently lost ground to flatten during the second quarter of 2012. A decline in exports and a slowdown in industrial activity, combined with low prices of coal and large volumes of precipitation (which limited the diesel usage in power generation) lie behind the weakness in the Chinese oil consumption observed in the past months. Under the group’s assumptions, after a marked setback this year, Chinese growth should strengthen in 2013, but remain below past years average. Besides, the Chinese automotive market is still dynamic (albeit braking). Chinese demand should thus keep a positive growth rate in the current year, before showing a modest acceleration in 2013.

On a global basis, oil demand is expected to increase by less than 1 million barrels per day in the current year and in 2013. Global oil consumption doesn’t seem able to digest oil prices averaging 120 U.S. dollar per barrel for a long time. Price spikes seen in the recent past have inevitably led to a fall in global consumption, and ultimately to a sharp reversal of the (previous) upward price trends. By now, tensions between Iran and Western countries should be considered as a constitutive part of the global oil market. In this sense, the worsening of the Syrian crisis and the (ongoing) intensification of the verbal conflict between Israel and Iran will probably sustain the geopolitical tensions in the Middle East over the forecast horizon. However – from a “political” point of view – we believe that further spikes could hardly be accepted passively by both the International Energy Agency, IEA, which is likely to react by releasing strategic stocks, and Saudi Arabia (the latter in order to guarantee the effectiveness of Iranian Sanctions and, not least, the advanced economies health – and subsequent long run oil demand growth perspectives).

### **An expected well-balanced market but bullish unknowns**

Generally speaking, the fundamentals for the remainder of 2012 and for 2013 are pointed downwards. Global demand is showing clear signs of slowing and the set of monetary and public spending stimulus are not expected to substantially pull the global product consumption in the coming months. Saudi Arabia is still committed to defend the 100 U.S. dollars per barrel threshold and could act either by increasing production or releasing inventories. Strategic Petroleum Reserves releases rumors continue to reach the headlines, and are probably justified in the light of the high gasoline prices and the coming election in the US. Furthermore, even without any OPEC or IEA reserve release, global oil supply appears strong enough to generate a more than 1 million barrel per day of surplus (other factors unchanged) before the end of the year. At the same time, however, various major bullish unknowns are still in place. Among others, Iran appears closer to reach a nuclear weapon capability, uneasy political situation in some of the major oil producers could easily overturn the current oil balance and the QE3 in the US is expected to depreciate the dollar against other currencies, potentially leading to higher oil demand and prices. For these reasons, we operate a quite conservative forecast of **111** U.S. dollars per barrel for 2012 and **103** U.S. dollars per barrel for 2013.

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### 3.3.2 Coal and natural gas

Steam coal prices are set to significantly decline this year in line with weaker demand, notably in Asia (Japan excluded). Coking coal prices will correct down even more sharply after the supply shortages triggered by the flooding in Australia in late 2010 and early 2011. Overall, coal supplies should go on rising over the forecast horizon and cover for the expected firming up demand. Through to mid-2014, coal prices should however regain some strength, as the current price levels are hardly meeting the marginal production costs. **Coal** prices will nonetheless remain well below the past two years average. **Natural gas** prices are set to go on expanding over the next two years but at an extremely more moderate pace than they did in 2011. Decreasing oil prices, a comfortable market balance thanks to abundant LNG supply (mainly from US shale gas) and weak demand prospects (especially in Europe in line with modest growth outlook) will prevent any strong rise in gas prices.

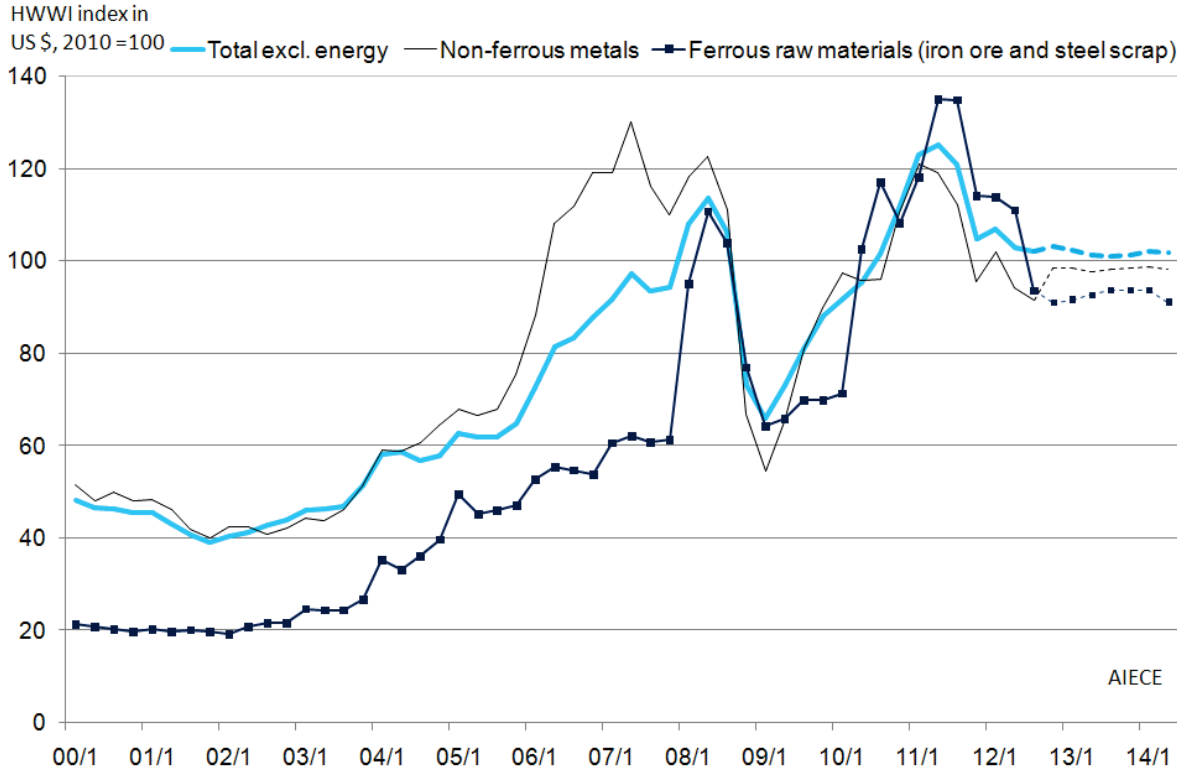
**Coal** prices collapsed over the recent months. Australian **steam coal** prices slumped by 22 per cent between the last quarter of 2011 and the third quarter of 2012. **Coking coal** prices continued their strong downward correction, falling 32 per cent below the peak reached at the turn of 2010-2011 due to the flooding in Australia. Coking coal prices are expected to tumble further in the last quarter of 2012 as is mirrored by the fall in both the contract and the spot prices. World coal trade volume is forecast to slow down in 2012. Steam coal import growth should decline in Europe and will be weaker in Asia (Japan excluded). In particular, Chinese steam coal imports are set to increase three times slower than last year, reflecting lower economic growth and higher hydro-power availability. In Japan, demand for imported steam coal is still supported by the shutting down of most of the nuclear plants since the March 2011 earthquake. Coking coal imports should on the contrary rebound in 2012, after the supply shortages that characterized the market last year. The sharp drop in coking coal prices along with the recovery in Australian production as well as higher exports from Russia and the newcomers Mongolia and Mozambique, will enable importers to cover current demand from steel mills and to replenish coking coal stocks. All in all, in 2012, coal supplies are projected to be sufficient to meet coal demand. Coal supply is projected to go on rising over the forecast horizon thanks to new production capacities, notably in Australia, Indonesia and Colombia. Demand for coal is also projected to accelerate, in line with better economic prospects, notably in Asia. The current coal price levels are hardly meeting the marginal production costs, which limits the chance for a further fall in prices. Over the forecast horizon, coal prices are thus projected to follow a modest upward trend, but to remain well below the peaks seen in 2011.

After a significant fall last year (-10 per cent) due to the combined effect of the recession in the euro area and mild winter weather in January and February, the European **natural gas** consumption is set to remain stable in 2012 (-1 per cent). Next year, the European gas demand should increase only moderately (by around 2 per cent) thanks to better economic prospects for the European economies. In line with flat demand, natural gas prices stagnated in the first half of 2012 and declined by 3 per cent in the third quarter of 2012. Apart from the decline in oil prices in late 2011, to which natural gas prices are linked with a lag, and the expansion of spot markets that exerted downward pressure on long-term contract prices, the structural increase of gas production in the US (thanks to shale gas) brought about a glut of natural gas supply (mainly Liquefied Natural Gas, LNG). In parallel, the European LNG import capacities doubled and LNG now accounts for a fourth of Europe's total gas imports. It is thus no accident that Western Europe gas import prices plummeted by 44 per cent between the October 2008 peak and September 2012. The oversupply in the market and the very modest oil price outlook are preventing any significant rebound in natural gas prices, but the situation could rapidly be reversed. Russia's state company *Gazprom* halted plans to develop a new arctic gas field, better world economic prospects as of 2013 could absorb the current supply glut, the decline in

European gas production is lifting LNG demand and the shutting down of nuclear plants in EU member states (notably in Germany) will reinforce the role of natural gas in electricity production. Natural gas prices are set to increase moderately over the next years, but their growth rate will remain lower than that of crude oil prices.

### 3.4 Outlook for metals and minerals

**Graph 12: Metals and minerals price forecast**



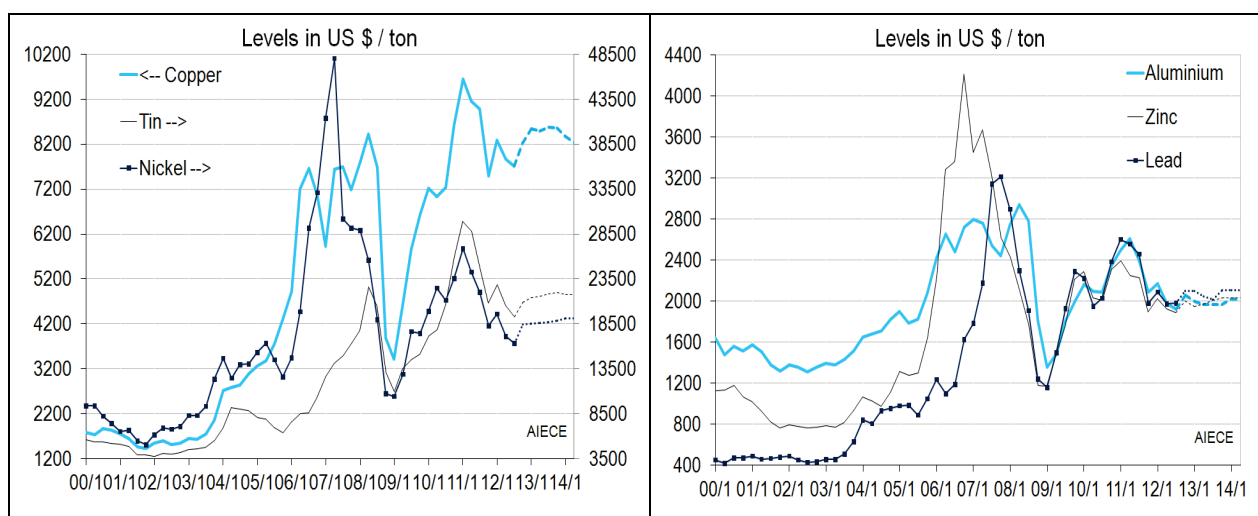
**Table 7 – Metals and minerals price forecast (index in US \$ terms, 2010 =100)**

Commodity		11/3	11/4	12/1	12/2	12/3	12/4	13/1	13/2	13/3	13/4	14/1	14/2	2010	2011	2012	2013
<b>Non-ferrous metals</b>		<b>112</b>	<b>95</b>	<b>102</b>	<b>94</b>	<b>92</b>	<b>98</b>	<b>99</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>99</b>	<b>98</b>	<b>100</b>	<b>112</b>	<b>97</b>	<b>98</b>
		<b>-6</b>	<b>-15</b>	<b>7</b>	<b>-8</b>	<b>-3</b>	<b>7</b>	<b>0</b>	<b>-1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-1</b>	<b>37</b>	<b>12</b>	<b>-14</b>	<b>2</b>
Aluminium	GB	110	96	100	91	89	95	92	91	91	91	93	93	100	110	94	91
		-8	-13	4	-9	-3	7	-3	-1	0	0	3	0	30	10	-15	-3
Copper	GB	119	99	110	104	102	109	113	113	114	114	111	109	100	117	106	113
		-2	-17	11	-5	-2	7	4	0	1	0	-2	-2	46	17	-9	7
Lead	GB	115	92	97	92	92	98	98	95	94	98	98	98	100	112	95	96
		-4	-20	6	-6	0	6	0	-2	-1	5	0	0	24	12	-15	2
Nickel	GB	101	84	90	79	75	85	85	85	86	87	88	88	100	105	82	86
		-9	-17	7	-13	-5	13	0	0	0	1	1	0	48	5	-22	4
Tin	GB	121	102	112	101	95	102	105	106	107	108	107	106	100	128	102	106
		-14	-16	10	-10	-6	8	2	1	1	1	-1	0	51	28	-20	4
Zinc	GB	103	88	94	89	88	93	90	91	93	94	94	94	100	102	91	92
		-1	-15	7	-5	-2	6	-2	1	2	1	0	0	30	2	-11	2
<b>Ferrous raw materials</b>		<b>135</b>	<b>114</b>	<b>114</b>	<b>111</b>	<b>94</b>	<b>91</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>91</b>	<b>100</b>	<b>125</b>	<b>102</b>	<b>93</b>
		<b>0</b>	<b>-15</b>	<b>0</b>	<b>-2</b>	<b>-16</b>	<b>-3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>-3</b>	<b>48</b>	<b>25</b>	<b>-18</b>	<b>-9</b>
Iron ore	BRA	142	113	114	112	90	89	89	90	90	90	90	87	100	129	101	90
		-1	-20	1	-1	-20	-1	0	2	0	0	0	-4	62	29	-22	-11
Steel scrap	US	119	116	113	107	102	96	98	98	102	102	102	102	100	116	105	100
		3	-2	-3	-5	-5	-6	2	0	3	0	0	0	23	16	-10	-5
Steel scrap	EU	119	116	113	107	102	96	98	98	101	101	101	101	100	116	105	100
		3	-2	-3	-5	-5	-6	2	0	3	0	0	0	23	16	-10	-5
<b>Steel</b>		<b>114</b>	<b>114</b>	<b>133</b>	<b>125</b>	<b>117</b>	<b>118</b>	<b>118</b>	<b>118</b>	<b>119</b>	<b>119</b>	<b>119</b>	<b>121</b>	<b>100</b>	<b>112</b>	<b>123</b>	<b>119</b>
		<b>0</b>	<b>0</b>	<b>17</b>	<b>-6</b>	<b>-6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>12</b>	<b>10</b>	<b>-4</b>

### 3.4.1 Non-ferrous metals

Indonesian export restrictions on unprocessed metals implemented last May, notably on bauxite and nickel ore, resulted in a deep fall of the country's mineral exports and investments in mineral prospecting. Besides, firms only have until mid-December to apply for export and mining permits. This, combined with the unveiling of a new Chinese stimulus package, is the reason lying behind the sharp rebound in all base metals prices seen since the end of the summer. This should sustain metals prices until late 2012, or early 2013 in the case of copper. As of 2013, the price outlook is quite modest: **non-ferrous metals** prices are set to remain more or less flat, thanks to loose fundamentals for almost all of them, tin excluded. A market surplus will cause **aluminium, nickel, zinc, lead** and to a lesser extent **copper** prices to stabilise over the next two years. Tin prices should follow a slightly positive path, due to an ongoing market deficit, even though the opening of new mines will eventually close the supply-demand gap and avoid the emergence of a new bullish trend.

**Graph 13: Non-ferrous metals price forecast (copper, tin, nickel, aluminium, zinc and lead)**



**Aluminium** prices have been on a decreasing trend since mid-2011. Between the third quarter of 2011 and the third quarter of 2012, prices slumped by 20 per cent, in a context of weak demand and slowing industrial production in China. Market fundamentals for aluminium remain quite comfortable. Global production is set to increase by 2 per cent in 2012, thanks to new capacities planned in Russia, China and India. Despite solid consumption growth in China, Brazil, Japan and in the US, the aluminium market should remain in surplus. However, due to high electricity prices and forecast lower aluminium prices, reduction in production capacities should continue in the medium-term. Aluminium prices should rebound in late 2012 and early 2013, amid fears for export availability following the Indonesia bauxite export restrictions. Over the next two years, demand should gradually firm up and production should go on expanding with new capacities in Iceland, India and in the Middle East. Aluminium prices are thus forecast to remain more or less flat up until mid-2014.

**Nickel** prices have been following a downward trend since mid-2011. Since the summer months of 2011 summer, nickel prices plummeted by 26 per cent, reaching in September 2012 their lowest level since July 2009. Meanwhile, the market registered a record surplus. The slowing down of the Chinese construction sector reduced nickel demand, but demand grew up in Brazil, India and Russia. All in all in 2012, thanks to the opening of new production capacities in China, Australia and New Caledonia, nickel supply should outpace demand. World production of stainless steel should be moderate although stainless steel re-stocking will eventually prevent nickel demand from falling. Through to the end of the forecast horizon, nickel demand is projected to gradually improve but will remain in line with nickel production. Due to sharp reduction in Indonesian nickel ore exports during the summer, notably to China, nickel prices rallied in September and are forecast to surge in late 2012. Further on, in line with market surplus and a relaxing of Indonesian export policy, nickel prices should barely expand.

**Zinc** prices declined almost steadily since mid-2011. In the third quarter of 2012, they were 15 per cent below the level seen one year earlier. In a context of falling demand, zinc stocks on the London Metal Market, LME, reached their highest level in 17 years during the summer. This year, nickel production is set to increase in Peru, India and China. Overall, production should grow in line with nickel demand, the latter being still sustained by China social housing construction and Japan reconstruction. Zinc prices rebounded strongly in September and are expected to go on increasing in late 2012 due to the Indonesian export restrictions. But over the forecast horizon, historically high

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stocks levels and market surplus (though decreasing) should contain any further rise in zinc prices; the latter are therefore projected to remain more or less stable up until mid-2014.

**Lead** prices have been falling since mid-2011. In 2012 third quarter, prices were 20 per cent lower than in 2011 third quarter. Refined lead production is expected to go on expanding in 2012, mostly driven by China, where new plants were opened. Production is also expected to increase in Japan, India and in Europe. Likewise, demand is set to remain particularly dynamic in China, due to car sales, and in Japan in line with the recovery in car production after the Fukushima disaster. Although still very comfortable, lead stocks are forecast to head lower this year. Over the forecast horizon, production should remain solid and demand may decelerate somewhat. To be sure, lead demand will be supported by Chinese restocking, but the phasing out of the catching-up effects after Fukushima will result in a dip in Japanese lead demand. Lead prices are thus projected to stagnate over the next two years.

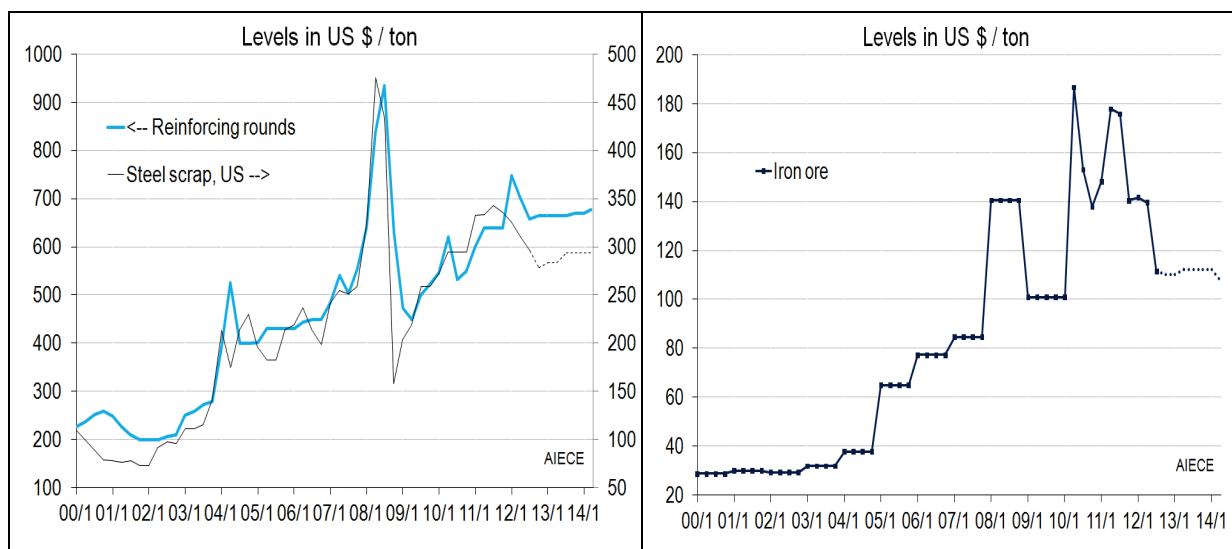
After the steep price retrenchment in the second half of 2011, **copper** prices started rising again in early 2012, due to China aggressive stock building campaign. The Chinese copper appetite was however mostly triggered by financing reasons, rather than genuine end-use consumption, as meanwhile manufacturing activity was weakening. Due to a lack of availability of Yuan loans and high discount rate, investors and firms used copper as a collateral for bank loan, *i.e.* turned to copper as a cheaper source of financing. In the second quarter of 2012, as the Chinese discount rate more than halved, firms turned away from commodity financing, while buyers' confidence and global industrial inputs demand deteriorated further. Copper prices consequently started to fall again, giving up 11 per cent between March and August. In the wake of the US QE3 announcement, some steps forwards in the European crisis (notably the ECB OMT program) and the unveiling of a new stimulus package in China, copper prices rallied in September (+7.9 per cent). They are expected to go on rising (though at a decreasing pace) until early 2013. The impact of the new Chinese stimulus package on copper prices is likely to be less intense than in 2009, due to significantly lower public investment (1 trillion Yuan vs. 4 trillion Yuan in 2009) and lower Chinese copper intensity (*see Box 3*). Chinese copper demand, in line with below average GDP growth, is expected to decelerate over the next two years. Global copper demand growth will also be contained by lacklustre economic prospects in the US and in Europe. As far as world copper supply is concerned, risks are still pointed downwards (due to strikes, declining ore grades or disruptions), but world copper market balance is expected to return to a slight surplus as of 2013. Copper prices should therefore follow a slightly decreasing trend until mid-2014.

**Tin** prices have been following a downward trend since mid-2011, mostly due to the weakness of the solder alloys market. Prices stabilised during the summer months, rebounded sharply in September and are set to go on rising until the end of the year, owing to the fears of new market balance tightness. Tin market balance will indeed be in deficit in 2012 for the third consecutive year. Global tin demand growth is expected to slow down this year, mainly due to a contraction in European consumption and a stalling Chinese demand in line with a still deteriorating property sector. But supply is set to remain stable, as a result of mines closures in China and troubles for Indonesian production, so that global tin stocks will decline again. In 2012, tin prices should be 20 per cent lower than last year, though still at the second highest level since 1985. Up until mid-2014, tin prices are projected to level off. The gradual improvement in the world economy should sustain global tin demand. But as new tin mines come on stream in China, Indonesia, Brazil and Bolivia, tin output should slowly close the gap to consumption, eventually avoiding the emergence of a new bullish trend.

### 3.4.2 Steel and ferrous steel raw materials

World **steel** production – steel raw material demand – achieved a new record of 1,52 Mt in 2011, pulled strongly by infrastructure projects in emerging markets, though production also rose in some OECD countries like the US. Steel markets, however, begun to weaken in the latter part of 2011 as production started generally to weaken with the exception of the US. In 2012, the market is set to be stagnant. This reflects weakened global economic outlook and strong recent investment boom, which has created a sizable over-capacity. Over the next two years, steel production is projected to grow only moderately, notably in China, which is a dominant producer with its 45 per cent production share. Under these circumstances, the price of **iron ore** will stay low, but further decline is contained by non-profitability of high-cost producers. The weakening of the steel boom is affecting the scrap prices less strongly than iron ore prices as was the case during the strong steel growth. The prices of iron ore and **ferrous scrap** will decline this year by 22 per cent and 10 per cent respectively. Over the next two years, iron ore and ferrous scrap prices will fluctuate around a low level reflecting a moderate rise in steel production and rising iron ore production capacity.

**Graph 14: Steel and ferrous raw materials price forecast**



World **steel** production achieved a new record of 1518 million tons in 2011 pulled strongly by infrastructure projects in emerging markets. The demand growth in developed nations on the other hand had been moderate after the Great Recession in 2008/2009. Steel markets, however, begun to weaken in the latter part of 2011 as production started generally to weaken with the exception of the US. World steel production grew in the second half of 2011 (y/y) by 6.2 per cent after 7.7 per cent in the first half. World production grew only 0.4 per cent in the first six months of this year. In August world production even declined by close to two per cent pushed down by a 1.7 per cent decline in China. The moderation of growth in steel production reflects a weakened global economic outlook and recent strong investments, which have created a sizable over capacity. The capacity utilization of the global steel industry had dropped in August 2012 to 75.5 per cent from the recent peak of 83.9 per cent in June 2011. It is assumed that the world economic growth will turn better by mid-2013, once the euro area crisis is in better control and stimulus measures will accelerate growth in the US and in China. China is the key for the steel market developments with its 45.1 per cent share of world production. The overcapacity of the global steel industry keeps the production figure moderate in the



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coming years, while investment activity will slow and the steel industry will consolidate further pressing the high cost producers. Under current circumstances, the capacity utilisation will continue to be weak, which will maintain the downward pressure on prices, which have generally declined since last spring, though many prices rose a bit in late summer, probably reflecting the weaker U.S. dollar. The price of **reinforcing round** in the US, which the group uses as an indicator for long product prices, is expected to continue rather flat as the effect of easing scrap prices is already more or less in the price. On average, the price will decline this year by 8 per cent over the next two years, with some recovery in 2013, as the demand will strengthen restricted by the overcapacity.

**Steel scrap** prices follows closely the price developments of reinforcing rounds (rebar) as its key raw material. The price of scrap did not benefit from steel boom in early 2000's as much as iron ore; though both are key inputs in steel making. The record price of iron ore in early 2011 was almost 7 times higher than in 2000, while the price of steel scrap was more than 5 times higher, accordingly. Iron ore (with coking coal) is the main steel raw material as iron ore based production technologies (blast furnaces, basic oxygen furnaces and direct reduced iron) account for about 70 per cent of world steel production. The scrap intensive electric arc furnaces (EAF) account basically the remaining 30 per cent of production. China, the main producer of steel uses EAFs only in 10 per cent of its production and it is China, where most of the steel production rise took place in the last ten years. While the world steel production grew 1.8 times higher, the Chinese production grew 4.5 times higher by 2011. China needs also much scrap as it is a big EAF producer and it uses also scrap in fine-tuning of iron ore based processes. The weakening of the steel boom is affecting the scrap prices less strongly than iron ore price like during the strong steel growth. The price of scrap will be 10 per cent lower this year than in 2011, while the price of iron ore is forecast to be 22 per cent lower. Next year prices will continue declining, with a rate of 4.5 per cent, though economic growth and steel demand start getting momentum, also in the industrialised countries given the risks, e.g. the crisis in the euro area will finally be resolved.

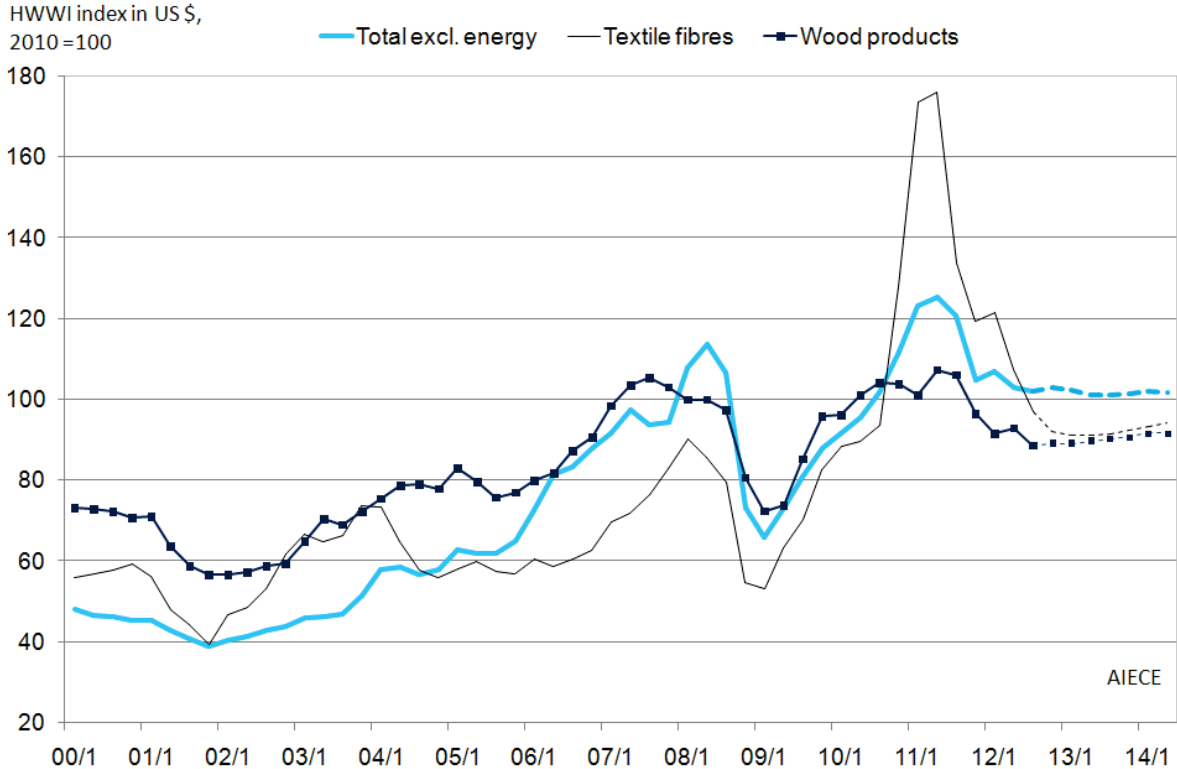
**Iron ore** spot prices peaked in February 2011 at 187.2 U.S. dollars per dry metric ton according to the Steel Index. Prices declined since below 100 dollars in September 2012 and recovered after that a bit. The price decline has been unexpectedly strong and has probably over-shooted somewhat as the 120 U.S. dollar level was widely considered as a floor of the price level amid many high cost producers around this level. The price decline reflected the deteriorated steel markets and a consequent weak ore demand especially in China. The pressure has been reinforced by the reluctance to dampen Chinese mining of ores with low iron contents. Iron ore price, reported by the HWWI institute, was as its highest in the first quarter of 2011 (6.8 times higher than in the year 2000). This very strong and unusually long-lasting boom-period triggered a wave of mining investments all around the world as high price turned minerals into ores. Large investment projects will bring substantial amount of ore into the markets. UNCTAD estimated last summer that by the end of 2014, 490 million tons of ore – more than 40 per cent of world imports – will flow into markets, while the “need” would be only 160 million tons, as the rapid growth in steel production will stagnate this year and grow only moderately in 2014 both globally and in China. The price reaction as described above has been strong as market participants anticipate the obvious forthcoming supply surplus in the markets. Prices fluctuations are all the more marked as the role of contract prices strongly diminished after 2011, when the mine companies shifted from annual contract pricing into shorter contracts. Currently, the price system includes many contract maturities and also spot prices.

China is a main driver in the iron ore markets with its 45 per cent share of steel production as iron-ore intensive blast furnaces are used intensively in the Chinese steel production. The Chinese government

stimulus measures will favour iron ore demand. The group expects that the iron ore prices will bottom this winter as global economic growth as well as steel production – demand for ore – are expected to start strengthening during 2013. Large new supply of iron ore is partly compensated by the shut-downs of high cost mines. The strong super-cycle of iron ore is, now, on bust phase. The price decline is, however restricted by the high marginal costs of mining in low-grade ores, e.g. in China.

### 3.5 Outlook for agricultural raw materials

Graph 15: Agricultural raw materials price forecast

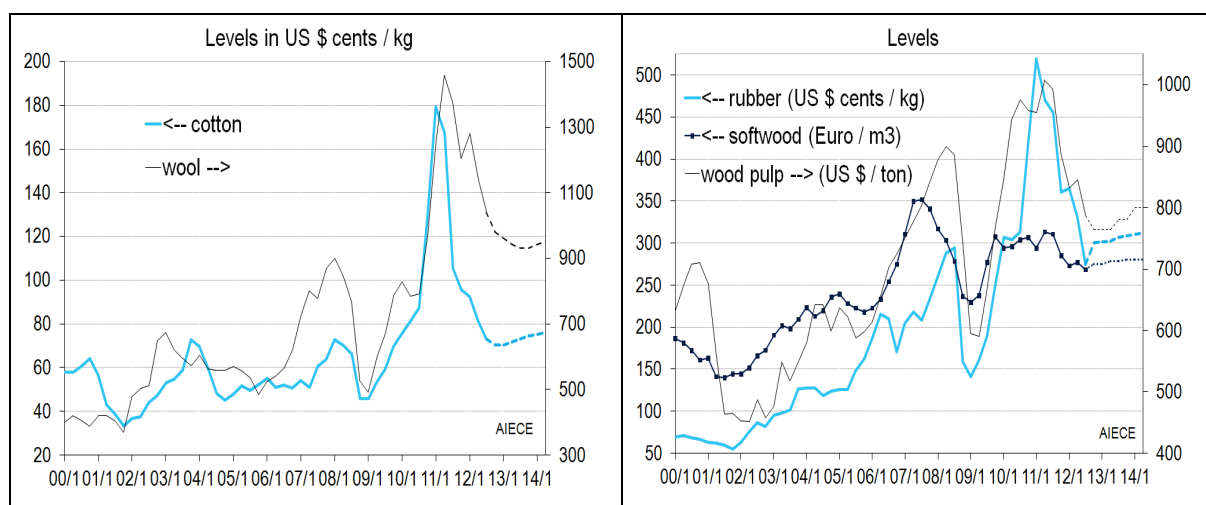


**Table 8 - Agricultural raw materials price forecast (index in US \$ terms, 2010=100)**

Commodity	11/3	11/4	12/1	12/2	12/3	12/4	13/1	13/2	13/3	13/4	14/1	14/2	2010	2011	2012	2013	
<b>Agricultural raw materials</b>	<b>113</b>	<b>100</b>	<b>97</b>	<b>96</b>	<b>89</b>	<b>90</b>	<b>90</b>	<b>91</b>	<b>92</b>	<b>92</b>	<b>93</b>	<b>93</b>	<b>100</b>	<b>111</b>	<b>93</b>	<b>91</b>	
	<b>-3</b>	<b>-12</b>	<b>-3</b>	<b>-1</b>	<b>-7</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>34</b>	<b>11</b>	<b>-16</b>	<b>-2</b>	
Textile fibres	134	119	121	107	97	92	91	91	91	92	93	94	100	150	104	91	
	-24	-11	2	-11	-10	-5	-1	0	0	1	1	1	49	50	-31	-12	
Cotton	US	113	102	99	87	78	75	75	76	78	79	80	81	100	146	85	77
		-37	-9	-3	-12	-10	-4	0	2	2	2	1	1	64	46	-42	-9
Wool	AUS	163	143	152	135	123	116	113	111	110	110	111	112	100	157	131	111
		-6	-12	6	-11	-9	-6	-2	-2	-1	0	1	1	32	57	-16	-15
Natural rubber	THAI	135	107	109	99	82	90	90	90	91	92	93	93	100	134	95	91
		-3	-21	1	-9	-17	9	0	0	1	1	1	0	81	34	-29	-4
Wood products		106	96	92	93	89	89	89	90	90	91	92	92	100	101	91	90
		-1	-9	-5	1	-5	0	0	1	1	0	1	0	24	1	-11	-1
Softwood	S	103	95	91	92	89	92	92	93	93	93	93	93	100	100	91	93
		-1	-8	-4	1	-3	2	0	1	0	1	0	0	14	0	-9	2
Woodpulp	FIN	107	95	89	91	85	82	82	82	84	84	86	86	100	103	87	83
		-1	-11	-6	2	-7	-3	0	0	2	0	3	0	42	3	-16	-4

International **natural fibres prices** corrected down after the record high they hit in early 2011. But **cotton** prices slumped sharper than **wool** prices, as wool production is less flexible than that of cotton, due to the delay needed for the increase in the number of sheep to turn into a significant increase in wool production. In the third quarter of 2012, cotton prices were close to 60 per cent down from the record high in early 2011, while that of wool were only 29 per cent below the previous record. Record prices were prompted by tight market balances: depleted global stocks for wool and fear for export availability following the export ban from India in the case of cotton. Natural fibres prices should go on declining in the short and medium term, in line with further improvement of market balance. Through to mid-2014, cotton prices could firm up as demand revives and production remains contained by lower plantings. **Natural rubber** and **wood pulp** prices followed a similar path. In 2012 third quarter, rubber and wood pulp prices were respectively 47 per cent and 22 per cent down the peak reached in early 2011. **Sawn softwood** prices only partially recovered from the 2008/2009 crisis and are sluggish since then. After a surge in late 2012 due to the export ban decided by the major natural rubber producing countries, rubber prices should slow down again. Wood pulp prices are expected to follow a modest rising trend as of next year in line with firming up Chinese demand and the end of de-stocking. Softwood prices should remain more or less stable, as weak demand is meeting a supply lowered since the 2008/2009 recession.

**Graph 16: Agricultural raw materials price forecast (natural fibres, rubber and wood products)**



In 2012-2013, global **cotton** supply should exceed cotton demand for the third consecutive year. Cotton production is however projected to decline by 7 per cent in 2012/2013, due to lower global planted and harvested area, in the wake of accrued competition with alternative and more favourably priced crops, corn and soybeans in particular. Sustained by lower cotton prices – in absolute terms and relative to the price of synthetic fibres (notably polyester) and wool – global mill use is expected to revive after two seasons of decline. The rise in cotton consumption should however be very moderate (+3 per cent). In particular, Chinese cotton consumption, which accounts for more than a third of global cotton demand, should reach its lowest level in a decade. Apart from a stalling economic growth, government price support policy stifles cotton spinners’ margins and market shares and the slowing down of the national reserve rebuilding will result in a halving of the country’s cotton imports. The market balance improved markedly last season when cotton closing stocks jumped by nearly 40 per cent, leaving the stocks-to-use ratio to the record high of 70 per cent of cotton consumption. Not surprisingly, this brought about a sharp drop in prices. The market balance should remain comfortable through to mid-2014, containing any strong rise in cotton prices. Risks to the outlook stems from the Indian export policy and China’s handling of the large cotton stocks it now holds (44 per cent of world stocks by the end of 2012-2013).

In the case of **wool**, the economic downturn in Europe and weak consumer demand in the US will dampen retail demand for wool textiles, which in turn, will weigh down on raw wool imports by China, the world’s largest raw wool processor. Besides, wool price-competitiveness relative to polyester and more importantly relative to cotton, remains and is set to remain downgraded, leading to wool being substituted by textile manufacturers wherever possible. Global wool consumption should decrease by 0.5 per cent in 2012-2013, before resuming gradually and moderately through to the end of the forecast horizon, as world economic growth and consumer spending strengthen. Wool supply is set to resume by 0.9 per cent this season, allowing stocks to significantly replenish. But such an outcome would still leave wool supply 20 per cent lower than the average seen in the 1995-2005 seasons. Lower wool prices and the ongoing shift towards sheep meat will hamper any significant rise in wool supply over the next two years. The improvement in the wool market balance will exert downward pressure on wool prices over much of the forecast horizon.

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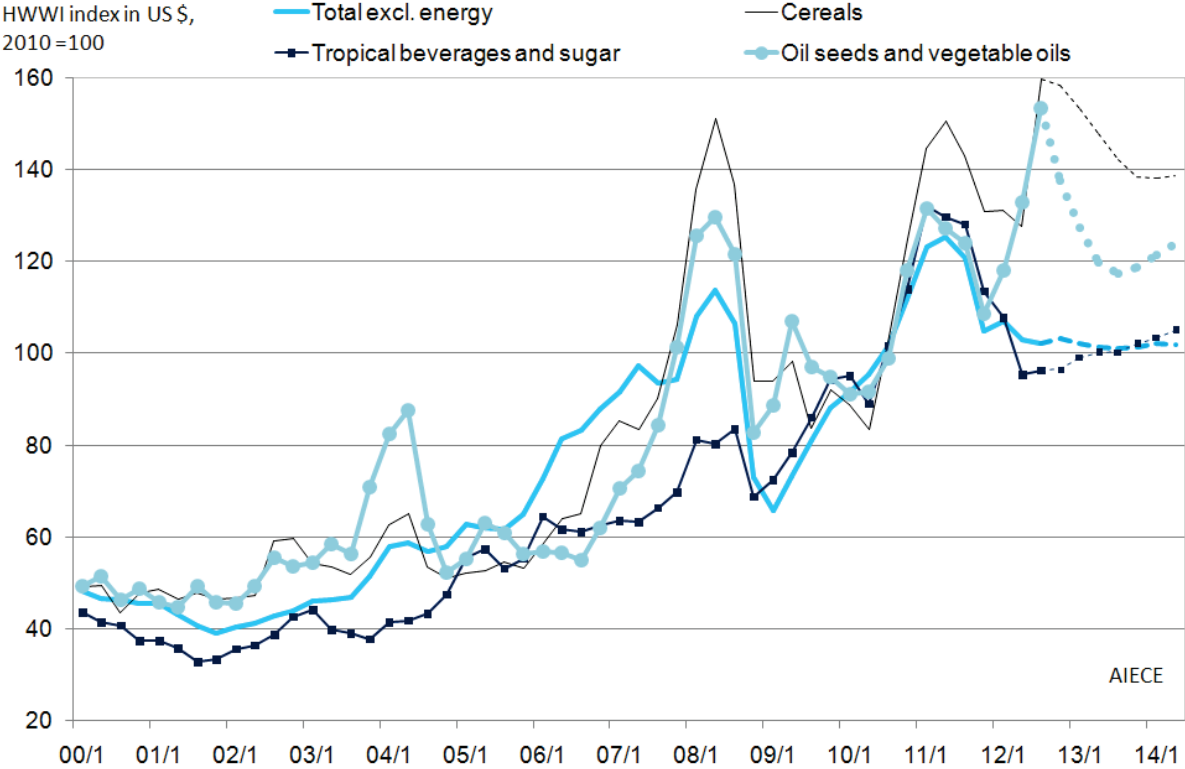
International **natural rubber** prices are set to surge in late 2012 in the wake of the export cut decided by the top three rubber producers, precisely to boost prices. Considering the fundamentals, rubber supply should keep on slowing over the next two years. On the one hand, weak demand prospects in line with sluggish world car production and high prices for petrochemicals (notably butadiene) will weigh on synthetic rubber production. On the other hand, in response to lower rubber prices, the three top rubber producers, Thailand, Indonesia and Malaysia, agreed in mid-August to accelerate the replanting of old trees and to cut their exports from October to March by 0.3 million tons, or 3 per cent of the global natural rubber supply. Yet, this agreement was initially set up to prop up prices in case they fall below 270 U.S. dollar cents per kg, as was the case in August. Prices are now close to 300 U.S. dollar cents per kg, so that part of the export cut may not be carried through. The increase in rubber prices should therefore stall in the medium term. Through to mid-2014, in line with the high level of oil prices, supply constraints, and better economic prospects, notably in China, the world's largest rubber consuming country, natural rubber prices should follow a slightly rising trend.

As for most other commodities the global recession in 2008/2009 led to a worldwide fall in **wood pulp** demand, with a resulting steep drop in prices. To meet the drop in demand, production cuts were made. When pulp demand resumed, especially in China, supply was still constrained. Between the spring of 2009 and the summer of 2010, wood pulp prices thus increased sharply, returning to pre-crisis levels. Prices peaked in early 2011, before tumbling by 22 per cent as both buyers and sellers went through a period of de-stocking at the back of slowing growth prospects. However, wood pulp prices are still far from the low levels seen during 2008/2009 recession. The main reason for this is that world trade and growth in developing markets have been holding up much better this time around. Demand from China has increased somewhat lately and the period of de-stocking is over for this time. Pulp prices are expected to increase moderately over the forecast horizon, though still remaining about 20 per cent below the high levels noted in early 2011.

The price of **sawn softwood** plunged between mid-2007 and the spring 2009. Increased demand and lowered supply thereafter led to a steep price increase in the second half of 2009. During much of 2010 and 2011 the price remained fairly stable. The price fell by 12 per cent between late 2011 and the summer of 2011. The price decrease seems to have stabilized in the last couple of months. Sawn wood is mainly used in construction. Construction in Europe has fallen sharply in the last five years. Some countries in Europe and in North America still have problems with overcapacity in the housing market. Besides, construction output in Europe is expected to be hampered by lower public investments in the wake of restrictive fiscal policies and dismal growth. The demand increase for sawn wood will therefore be modest. A continued higher demand from Asia compared to Europe, together with lowered supply due to the shut down of non-profitable saw mills in Europe after the collapse in prices in 2008/2009, are preventing the prices from falling further, should not the macro economic outlook drastically worsen. Sawn softwood prices are expected to stay more or less flat over the next two years.

### 3.6 Outlook for food and tropical beverages

**Graph 17: Food and tropical beverages price forecast**



**Table 9 - Food and tropical beverages price forecast (index in US \$ terms, 2010=100)**

Commodity	11/3	11/4	12/1	12/2	12/3	12/4	13/1	13/2	13/3	13/4	14/1	14/2	2010	2011	2012	2013	
<b>Food total</b>	<b>130</b>	<b>116</b>	<b>117</b>	<b>117</b>	<b>133</b>	<b>127</b>	<b>123</b>	<b>119</b>	<b>117</b>	<b>117</b>	<b>119</b>	<b>120</b>	<b>100</b>	<b>129</b>	<b>123</b>	<b>119</b>	
	<b>-3</b>	<b>-11</b>	<b>1</b>	<b>-1</b>	<b>14</b>	<b>-4</b>	<b>-3</b>	<b>-3</b>	<b>-2</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>11</b>	<b>29</b>	<b>-4</b>	<b>-3</b>	
<b>Cereals</b>	<b>143</b>	<b>131</b>	<b>131</b>	<b>127</b>	<b>160</b>	<b>158</b>	<b>153</b>	<b>148</b>	<b>142</b>	<b>138</b>	<b>138</b>	<b>138</b>	<b>100</b>	<b>142</b>	<b>144</b>	<b>145</b>	
	<b>-5</b>	<b>-8</b>	<b>0</b>	<b>-3</b>	<b>25</b>	<b>-1</b>	<b>-3</b>	<b>-4</b>	<b>-4</b>	<b>-3</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>42</b>	<b>1</b>	<b>1</b>	
Barley	CAN	133	134	137	148	162	164	160	157	154	151	148	145	100	132	153	156
		0	1	2	8	9	1	-2	-2	-2	-2	-2	24	32	16	2	
Maize	US	161	145	149	142	180	172	168	165	163	162	161	100	158	161	164	
		-5	-10	3	-4	27	-5	-3	-1	-1	-1	-1	0	15	58	2	2
Wheat	US	129	113	113	108	145	154	147	136	123	114	116	100	133	130	130	
		-10	-12	0	-5	34	6	-4	-8	-10	-7	1	1	9	33	-2	0
Rice	THAI	112	123	109	115	119	117	114	112	110	108	107	100	110	115	111	
		13	9	-11	5	4	-2	-3	-3	-2	-2	-1	0	-10	10	5	-4
<b>Tropical beverages, sugar</b>	<b>128</b>	<b>113</b>	<b>108</b>	<b>95</b>	<b>96</b>	<b>97</b>	<b>99</b>	<b>100</b>	<b>100</b>	<b>102</b>	<b>103</b>	<b>105</b>	<b>100</b>	<b>126</b>	<b>99</b>	<b>100</b>	
	<b>-1</b>	<b>-11</b>	<b>-5</b>	<b>-12</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>21</b>	<b>26</b>	<b>-21</b>	<b>1</b>	
Coffee	US,D,F	143	130	122	104	104	106	108	108	109	110	112	114	100	142	109	109
		-6	-9	-7	-14	-1	2	2	0	1	1	2	2	28	42	-24	0
Cocoa	US	97	79	75	73	80	78	80	80	80	82	83	84	100	95	76	81
		-1	-19	-5	-2	9	-2	3	0	0	2	1	1	8	-5	-20	6
Tea (avg)	ALL	102	95	94	93	96	99	101	100	99	98	98	100	100	100	96	100
		0	-7	0	-1	4	2	2	-1	-2	-1	0	2	4	0	-4	4
Sugar	US	128	111	110	95	94	90	94	98	98	103	103	103	100	122	97	99
		17	-14	-1	-14	-1	-4	5	4	0	5	0	0	25	22	-20	2
<b>Oil seeds, vegetable oils</b>	<b>124</b>	<b>109</b>	<b>118</b>	<b>133</b>	<b>153</b>	<b>137</b>	<b>127</b>	<b>120</b>	<b>117</b>	<b>119</b>	<b>121</b>	<b>124</b>	<b>100</b>	<b>123</b>	<b>135</b>	<b>121</b>	
	<b>-2</b>	<b>-12</b>	<b>9</b>	<b>12</b>	<b>15</b>	<b>-10</b>	<b>-7</b>	<b>-6</b>	<b>-2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>23</b>	<b>10</b>	<b>-11</b>	
Soybeans	US	129	112	121	136	159	143	133	125	122	124	126	129	100	126	140	126
		0	-13	8	12	17	-10	-7	-6	-2	1	2	2	3	26	11	-10
Soybean meal	US	118	101	113	138	170	153	142	133	131	132	135	137	100	115	143	135
		0	-14	12	22	23	-10	-7	-6	-2	1	2	2	-6	15	24	-6
Soybean oil	US	133	121	126	125	129	113	103	97	95	97	100	102	100	131	123	98
		-3	-9	5	-1	3	-12	-9	-6	-2	2	3	2	18	31	-6	-20

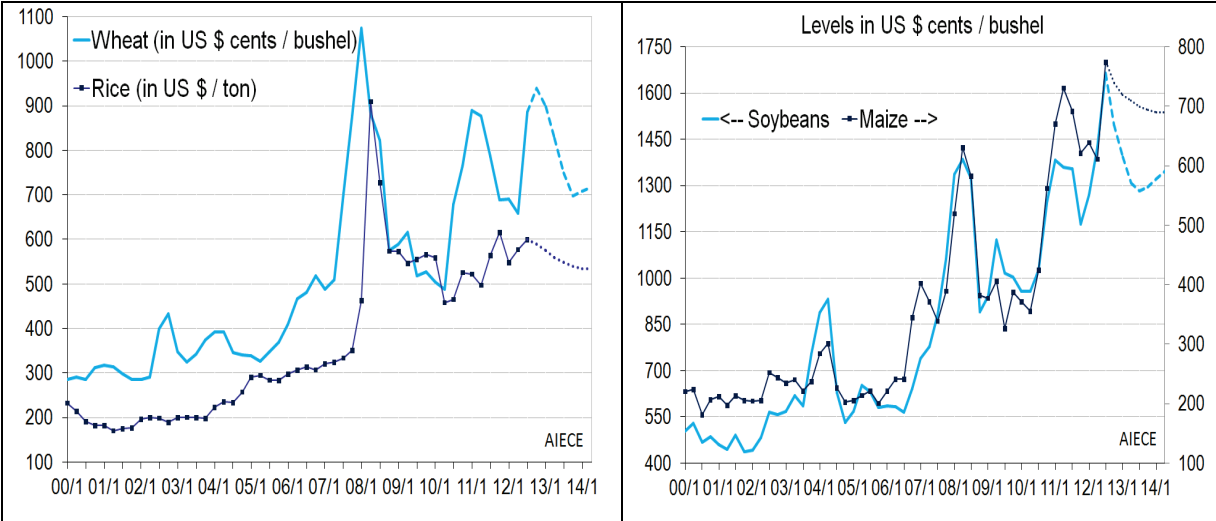
International **grain prices** rose strongly over the summer months in response to a deteriorating outlook for supply due to draught in the US and – more importantly in the case of wheat – the Black Sea region and Australia. Global **wheat** production is now projected to fall by 6 per cent and world **corn** production to shrink by 4.5 per cent. Although this would be still a large harvest in historical perspective – in fact it would be the second largest maize crop on record – it will not be enough to satisfy demand and reduce inventories. Between May and September our benchmark prices for wheat and maize rose by 45 per cent and 35 per cent, respectively. Although the rate of increase in prices was somewhat higher in the case of wheat, the level of wheat prices is still some 20 per cent off the peak levels seen in early 2008. The major difference between then and now is that in 2008 wheat stocks were at historically extremely low levels while currently they are relatively abundant. By contrast, maize prices rose to new record levels, reflecting a substantially tighter market situation. In the market year 2011-2012 the stocks-to-use ratio already reached a historically extremely low level of just 14.3 per cent and despite some reaction of demand to high prices, this ratio is expected to decline further to 13.5 per cent in 2012-13. **Soybean** prices have been on rising trend since the beginning of 2012, and firmed up during the summer. The soybean crop will indeed also suffer from the US

Midwest drought but potential abundant harvests in South America will result in a substantial rise in global soybean production. Recent record soybeans prices will continue to weigh down on demand (either for feed or biofuels use), and the market balance should quickly improve, placing downward pressure on prices. Finally, international **rice** prices continued to firm over recent months, mainly due to lower available supplies for export, while the market balance remained and is forecast to remain quite comfortable, especially regarding wheat, corn or soybean.

Thanks to better market fundamentals, **tropical beverages** prices declined significantly since the peaks reached in 2010 and 2011. **Cocoa** and **coffee** prices tumbled by more than a third between early 2011 and early 2012, but **tea** prices fall relatively less sharply by 13 per cent. Cocoa prices rallied this summer amid political unrest near Abidjan, concerns about the West African crop, a tighter market balance and Ivory Coast’s cocoa sector reforms. Cocoa prices should go on rising, though at a more moderate pace, until mid-2014. Tea prices also revived in 2012 third quarter, and should do so up until next year, due to the current gap between supply and demand following the sharp declines in tea crops in major producing countries during the first half of the year. Coffee prices continued to fall in the last quarter but are expected to resume in the coming months due to a tighter market balance. After a solid fall since early 2011 due to oversupply, **sugar** prices have stabilized in the recent months among fears for the Brazilian output. The sugar market surplus is expected to be reduced over the next two years. Indeed, sugar output growth should slow down but demand is set to remain firm, particularly in emerging economies, in line with a gradual economic recovery starting next year. Prices should thus follow a rising trend through to mid-2014.

**3.6.1 Grains**

**Graph 18: Grains price forecast (wheat, rice maize and soybeans)**



**Wheat** consumption is projected to slow drastically in response to the higher prices. While food use, which constitutes a share of around 70 per cent of wheat consumption, should continue its slowly rising trend, demand for livestock feed is forecast to drop back as users are likely to switch to alternatives. Because of price levels of major competing feedstuffs, including maize and soybeans, also being extremely high, substitution will, however, be limited. In the absence of substantial negative news on production, *i.e.* assuming normal weather conditions in the major producing areas, we nevertheless project wheat prices to give up some of the gains of the recent months over the



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coming quarters, but remain relatively high in a historical perspective. Risks to the outlook stem from the general environment in financial markets as financial investors play an important role in the wheat futures market.

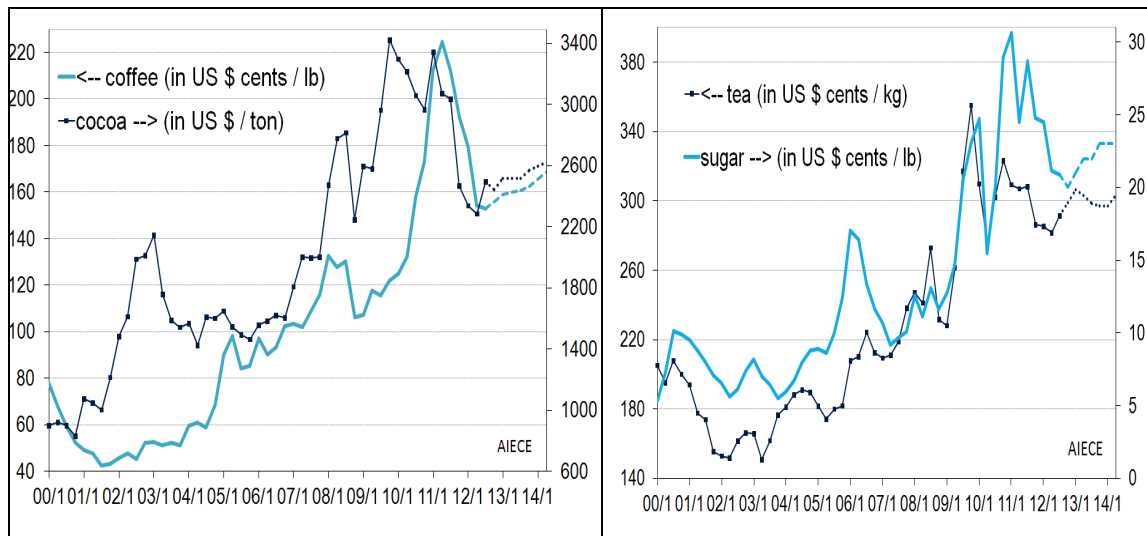
In the case of **maize**, consumption is forecast to respond to surging prices in the new market year, with global demand expected to decline for the first time since 1995-1996 on an annual basis. In particular, the lack of supply in the US may lead to a decline in the use for ethanol production in the US for the second year in a row. In view of the evident shortage of maize, there is currently speculation about a temporary lift of the Renewable Fuels Standard (RFS) requirements, which mandate refineries to blend gasoline with 10 per cent of ethanol, which is mainly produced from corn. Assuming normal weather patterns and expecting farmers to respond to current high prices by increasing acreage dedicated to maize, international coarse grain prices should gradually retreat over the forecast horizon. The price level is nevertheless expected to remain historically very high, reflecting the underlying strength of demand and the fragility of the market situation due to the very low level of inventories. In addition, there is a large risk that negative surprises to the supply outlook will lead to further strong increases in prices.

**Soybean** prices increased almost steadily since early 2012, reaching an all-time high in September 2012 (around 15 per cent higher than the peaks during the summer of 2008), in the wake of the severe drought in the Midwest of the US. Despite good weather conditions in the US South West producing regions, the US soybean crop for 2012-2013 is forecast to reach its lowest level in almost a decade. However, thanks to potential record breaking crops in South America – notably in Brazil and Argentina due to returns to average yield levels and to further expansion in plantings in line with record soybean prices –, the 2012-2013 global soybean production will experience a substantial growth. In parallel, global soybean consumption is set to fall in 2012-2013. Record prices will lower demand for fuel, all the more so as palm oil prices, a substitute for soy oil in biofuels production, are falling, and for food use. Indeed, the increasing prices of feeding stuff (soybean but also corn) led farmers to reduce cattle livestock and to find alternative feeding source (e.g. grass). The market balance should thus improve quickly. High storage costs and record crops in South America will lift the quantities of soybean offered in the markets and prices should therefore decrease through to late 2013.

International **rice** prices continued to firm over recent months although the situation in the global supply/demand balance remained comfortable. In 2011-2012, production is estimated to have exceeded demand for the seventh consecutive year. Accordingly, stocks have risen to a historically high level. The outlook is currently for a further increase in global production. Assuming continued moderate growth of demand, global production is likely to exceed consumption for another year, although by only a small margin. In this environment, the current strength of world rice prices is somewhat surprising. The main explanation is that export availabilities have not developed in line with production. While import demand has been rising and will this year approach the record 2007 level, supplies available for exports were squeezed due to the lower level of output in the US (the third largest exporter after Thailand and Vietnam) and the accumulation of inventories in the context of a rice-pledging scheme introduced by the newly elected Thai government last year. Other countries, including China, are also pursuing a policy of adding rice to the national reserves and effectively supporting the level of prices on international markets. As our central forecast, we project the international rice market to gradually ease over the forecast horizon and, in response, world market prices to gradually retreat.

### 3.6.2 Tropical beverages and sugar

Graph 19: Tropical beverages and sugar price forecast



**Coffee** prices declined steadily since the summer of 2011. Between the price hike of the second quarter of 2011 and the third quarter of 2012, coffee prices slumped by 32 per cent. This sharp drop was prompted by the recovery in coffee output, notably in Brazil and Vietnam. The 2011-2012 coffee production is however expected to decrease slightly (-1.2 per cent), because of the biennial cycle for Arabica coffee production in Brazil and plant diseases in South American producing countries (Colombia, Guatemala and Honduras). Conversely, coffee consumption should rise very moderately by 0.5 per cent, far below the past ten years annual growth rate average. Consumption will be reduced in importing countries, both in emerging markets and in traditional markets (notably in Southern European countries due to squeezed income growth), but should remain buoyant in exporting countries, where domestic coffee consumption is sustained by rising incomes. World coffee inventories are thus set to decline, and this tight market balance will support coffee prices in the short run. Upside risk to the price outlook stems from the Brazilian output, as rainy weather may affect the country's recent harvest. Over the next two years, a continuously growing demand in coffee exporting countries due to rising incomes combined with declining stocks in these countries will support coffee prices. The latter will remain quite high by historical standards.

**Cocoa** prices declined steadily after the dramatic increase seen during the political crisis in Ivory Coast, in late 2010 and early 2011. Between the first quarter of 2011 and the second quarter of 2012, cocoa prices tumbled by 32 per cent. Along with the cooling off the political turmoil in the world's largest cocoa producer, the market fundamentals also improved. The 2011-2012 cocoa crop should be close to the record crop observed in the previous season, while cocoa grindings is set to slow down in line with weaker economic growth, particularly in Western Europe, the main market for cocoa. Cocoa prices however rallied during the summer (+9 per cent in 2012 third quarter), due to concerns about dry weather that could harm the cocoa crop in West Africa and unrests near Abidjan (the commercial capital of Ivory Coast). Besides, the cocoa market balance for 2012-2013 is expected to be in deficit due to insufficient rains in parts of West Africa. The tighter fundamentals will sustain prices in the short run. Over the next two years, reform of the cocoa sector in Ivory Coast could give rise to uncertainties about cocoa availability and thus push prices up. Indeed, the Ivory government decided of a guaranteed price for all cocoa farmers. This could make agreement between intermediaries and

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farmers more difficult to reach and thus jeopardize cocoa deliveries. In anticipation of possible future shortages exporters already increased their number of stored cocoa beans. On the other hand, structural programs aiming at increasing cocoa tree yields and cocoa facilities in key producing countries should contain the price increase.

**Tea** prices declined by 13 per cent between late 2010 and early 2012, though remaining high on a historical perspective. They resumed again during the summer months because of a bleaker market balance outlook. Primarily affected by disadvantageous weather conditions, global tea output is expected to decrease in 2012. Tea output has already significantly fallen in key producing countries since the beginning of the year. The Indian tea crop was affected by the worst drought seen in fifteen years and was already down 18 percent y/y in the first quarter of 2012. The Kenyan tea production plunged by 11 per cent y/y in the first half of 2012, and tea production in Sri Lanka dipped by 7 per cent y/y in the first quarter of 2012. Even when assuming normal weather conditions from now on, it is unlikely that the global production will rise in 2012. In parallel, global tea demand growth should slow down, in line with faltering economic growth in Asian countries, which account for half of the world tea consumption. The current gap between supply and demand in the wake of the sharp dip in tea output in the first half of 2012 will lift prices through to early 2013. As production increase offsets the missing volumes, tea prices should then recede through to the end of the forecast horizon.

The decline of international **sugar** prices that has been going on since early 2011, has continued until summer 2012. In early June, sugar prices reached their lowest level since the third quarter of 2010. Fundamentally lower prices are the result of the strong increase of supply triggered by two years of high global sugar prices, which has led the market to a second consecutive year of surplus and the first significant increase of inventories in five years. More recently, prices have stabilized reflecting reduced expectations for Brazilian output going forward and a generally more bullish sentiment in commodity markets. Looking ahead, sugar output is expected to slow from this year's rapid growth with Brazilian sugar cane farmers again facing weather related difficulties and European output approaching a plateau. With steady consumption growth expected, this would mean that the market surplus should shrink. Given that the level of stocks is still relatively low by historical standards and that important countries such as China, India and Russia, are still in the process of replenishing stocks under government schemes, prices are expected to stabilize then gradually firm up over the forecast horizon.

## Appendix tables

### A.1 Trade Forecasts

Table 10 - Import volumes of goods

(annual percentage change)

	Weight (%)	2011	2012	2013
<b>World</b>	<b>100.0</b>	<b>6.4</b>	<b>2.9</b>	<b>4.7</b>
<b>Advanced economies</b>	<b>54.0</b>	<b>4.9</b>	<b>1.4</b>	<b>2.9</b>
<b>Euro Area</b>	<b>25.3</b>	<b>4.6</b>	<b>-0.8</b>	<b>2.4</b>
Austria	1.1	8.5	0.0	4.0
Belgium	1.6	5.6	-1.0	2.0
Germany	7.6	8.2	2.7	5.5
Spain	2.1	-0.7	-6.5	-3.0
Finland	0.5	6.9	-1.5	1.3
France	3.8	6.0	0.7	1.6
Greece	0.4	-7.1	-7.0	-3.0
Ireland	0.9	-2.3	-3.0	1.0
Italy	3.1	2.1	-8.4	1.3
Luxembourg	0.4	6.6	-3.0	2.0
Netherlands	2.7	4.1	3.5	2.8
Portugal	0.4	-6.7	-6.6	-2.0
Slovenia	0.2	5.5	-2.5	3.5
United Kingdom	3.9	0.8	1.1	3.5
Sweden	1.1	7.5	-0.5	3.0
Denmark	0.7	4.8	1.0	3.5
Switzerland	1.2	3.1	1.8	3.5
United States	12.4	5.2	3.5	2.7
Japan	4.5	5.6	5.0	3.0
Australia	1.4	9.8	7.0	7.5
New Zealand	0.2	7.9	4.0	5.0
Canada	2.6	7.2	3.8	4.1
Norway	0.6	6.1	4.0	3.5
Iceland	0.0	5.5	3.0	3.0
<b>Emerging Economies</b>	<b>46.0</b>	<b>8.1</b>	<b>4.6</b>	<b>6.8</b>
<b>C+E Europe</b>	<b>8.4</b>	<b>11.5</b>	<b>5.0</b>	<b>6.5</b>
Poland	1.1	7.1	2.0	4.5
Hungary	0.6	6.8	0.8	3.8
Czech Republic	0.7	7.2	1.0	5.0
<b>Emerging Asia</b>	<b>25.1</b>	<b>7.2</b>	<b>3.5</b>	<b>7.0</b>
China	8.8	9.7	2.5	8.0
NIEs	9.2	4.0	1.0	6.0
Other Asia	7.1	8.0	8.0	7.0
<b>Latin America</b>	<b>5.6</b>	<b>10.0</b>	<b>5.0</b>	<b>6.5</b>
<b>Africa + Middle East</b>	<b>6.9</b>	<b>6.0</b>	<b>7.5</b>	<b>7.0</b>

**Table 11 – Export volumes of goods**

(annual percentage change)

	<b>Weight (%)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>World</b>	<b>100.0</b>	<b>6.0</b>	<b>2.9</b>	<b>4.8</b>
<b>Advanced economies</b>	<b>51.5</b>	<b>5.7</b>	<b>2.4</b>	<b>4.1</b>
<b>Euro Area</b>	<b>25.6</b>	<b>6.6</b>	<b>2.1</b>	<b>3.7</b>
Austria	1.1	7.9	1.0	4.3
Belgium	1.6	5.5	-0.5	2.5
Germany	8.2	8.7	3.5	5.0
Spain	2.1	8.5	1.5	4.0
Finland	0.5	1.9	0.0	2.5
France	3.4	4.6	2.5	3.0
Greece	0.3	4.0	2.0	4.5
Ireland	1.1	2.7	-1.0	4.0
Italy	2.9	7.8	0.0	2.0
Luxembourg	0.5	12.3	-1.0	2.0
Netherlands	3.0	4.0	4.0	3.5
Portugal	0.4	7.9	2.5	4.0
Slovenia	0.2	8.5	0.0	4.5
United Kingdom	3.6	5.6	-1.0	4.0
Sweden	1.2	8.9	-1.5	2.5
Denmark	0.8	6.0	0.8	1.5
Switzerland	1.5	6.3	0.5	2.3
United States	9.5	7.1	5.4	6.0
Japan	4.2	0.6	1.5	4.5
Australia	1.5	0.5	4.0	4.5
New Zealand	0.2	1.8	4.0	4.5
Canada	2.4	5.0	4.5	4.0
Norway	0.9	-2.9	1.0	2.0
Iceland	0.0	4.8	2.5	3.0
<b>Emerging Economies</b>	<b>48.5</b>	<b>6.3</b>	<b>3.5</b>	<b>5.6</b>
<b>C+E Europe</b>	<b>8.7</b>	<b>7.5</b>	<b>5.0</b>	<b>5.5</b>
Poland	1.1	8.1	6.0	6.0
Hungary	0.6	10.0	2.5	4.5
Czech Republic	0.7	10.0	2.0	4.0
<b>Emerging Asia</b>	<b>25.7</b>	<b>7.1</b>	<b>2.6</b>	<b>5.9</b>
China	9.5	9.8	2.5	7.0
NIEs	9.6	6.7	1.0	5.5
Other Asia	6.6	3.9	5.0	5.0
<b>Latin America</b>	<b>5.6</b>	<b>5.8</b>	<b>5.0</b>	<b>5.5</b>
<b>Africa + Middle East</b>	<b>8.6</b>	<b>2.8</b>	<b>3.5</b>	<b>5.0</b>

**Table 12 – Import prices of goods (in national currency)**

(annual percentage change)

	<b>Weight (%)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>World</b>	<b>100.0</b>	<b>7.7</b>	<b>0.9</b>	<b>0.7</b>
<b>Advanced economies</b>	<b>54.0</b>	<b>6.7</b>	<b>1.1</b>	<b>0.3</b>
<b>Euro Area</b>	<b>25.3</b>	<b>6.2</b>	<b>2.1</b>	<b>0.7</b>
Austria	1.1	6.2	1.3	1.0
Belgium	1.6	5.3	2.0	1.0
Germany	7.6	6.0	1.5	1.0
Spain	2.1	8.8	3.7	1.3
Finland	0.5	8.5	0.5	0.0
France	3.8	6.0	1.6	0.2
Greece	0.4	7.6	2.5	-1.0
Ireland	0.9	5.5	3.0	1.0
Italy	3.1	8.2	4.0	1.2
Luxembourg	0.4	-3.4	1.5	1.0
Netherlands	2.7	4.9	2.0	-0.5
Portugal	0.4	8.6	1.5	1.0
Slovenia	0.2	6.4	1.0	0.5
United Kingdom	3.9	8.7	-0.9	-0.3
Sweden	1.1	-0.4	-1.5	-2.0
Denmark	0.7	6.8	4.0	1.0
Switzerland	1.2	-1.6	-0.8	0.0
United States	12.4	9.3	1.0	0.0
Japan	4.5	8.7	-1.0	0.0
Australia	1.4	1.2	1.5	1.0
New Zealand	0.2	3.1	-0.5	0.5
Canada	2.6	2.8	0.5	0.5
Norway	0.6	4.2	-1.0	0.5
Iceland	0.0	7.2	3.0	1.0
<b>Emerging Economies*</b>	<b>46.0</b>	<b>9.0</b>	<b>0.6</b>	<b>1.0</b>
<b>C+E Europe*</b>	<b>8.4</b>	<b>13.0</b>	<b>-2.0</b>	<b>0.5</b>
Poland	1.1	8.9	-0.5	0.0
Hungary	0.6	5.6	4.0	2.0
Czech Republic	0.7	3.2	6.0	2.0
<b>Emerging Asia*</b>	<b>25.1</b>	<b>6.1</b>	<b>1.9</b>	<b>1.1</b>
China	8.8	8.7	2.0	0.0
NIEs*	9.2	15.0	2.0	1.5
Other Asia*	7.1	13.0	-0.5	1.5
<b>Latin America*</b>	<b>5.6</b>	<b>10.0</b>	<b>1.5</b>	<b>1.2</b>
<b>Africa + Middle East*</b>	<b>6.9</b>	<b>14.0</b>	<b>-2.0</b>	<b>1.5</b>

\* Prices in USD

**Table 13 – Import prices of goods (in U.S. dollar)**

(annual percentage change)

	<b>Weight (%)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>World</b>	<b>100.0</b>	<b>11.8</b>	<b>-1.2</b>	<b>1.1</b>
<b>Advanced economies</b>	<b>54.0</b>	<b>11.1</b>	<b>-3.2</b>	<b>1.0</b>
<b>Euro Area</b>	<b>25.3</b>	<b>10.8</b>	<b>-6.5</b>	<b>1.4</b>
Austria	1.1	11.0	-7.4	1.8
Belgium	1.6	10.1	-6.7	1.8
Germany	7.6	10.8	-7.2	1.8
Spain	2.1	13.6	-5.0	2.1
Finland	0.5	13.3	-8.2	0.8
France	3.8	10.8	-7.2	1.0
Greece	0.4	12.4	-6.2	-0.2
Ireland	0.9	10.2	-5.7	1.8
Italy	3.1	13.0	-4.7	2.0
Luxembourg	0.4	1.3	-7.2	1.8
Netherlands	2.7	9.7	-6.7	0.3
Portugal	0.4	13.4	-7.2	1.8
Slovenia	0.2	11.2	-7.7	1.3
United Kingdom	3.9	12.4	-1.9	1.3
Sweden	1.1	9.4	-3.8	-1.2
Denmark	0.7	11.5	-4.8	1.8
Switzerland	1.2	13.4	-7.5	0.8
United States	12.4	9.3	1.0	0.0
Japan	4.5	17.8	-0.5	1.4
Australia	1.4	12.0	1.7	1.8
New Zealand	0.2	11.9	2.3	1.3
Canada	2.6	6.8	1.2	1.3
Norway	0.6	11.5	-4.2	1.3
Iceland	0.0	12.1	-3.3	1.8
<b>Emerging Economies</b>	<b>46.0</b>	<b>12.7</b>	<b>1.1</b>	<b>1.2</b>
<b>C+E Europe</b>	<b>8.4</b>	<b>13.0</b>	<b>-2.0</b>	<b>0.5</b>
Poland	1.1	10.7	-9.6	0.8
Hungary	0.6	9.0	-6.6	2.8
Czech Republic	0.7	10.6	-3.5	2.8
<b>Emerging Asia</b>	<b>25.1</b>	<b>12.8</b>	<b>2.9</b>	<b>1.3</b>
China	8.8	10.4	6.5	1.0
NIEs	9.2	15.0	2.0	1.5
Other Asia	7.1	13.0	-0.5	1.5
<b>Latin America</b>	<b>5.6</b>	<b>10.0</b>	<b>1.5</b>	<b>1.2</b>
<b>Africa + Middle East</b>	<b>6.9</b>	<b>14.0</b>	<b>-2.0</b>	<b>1.5</b>

**Table 14 – Export prices of goods (in national currency)**

(annual percentage change)

	<b>Weight (%)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>World</b>	<b>100.0</b>	<b>9.5</b>	<b>1.2</b>	<b>0.8</b>
<b>Advanced economies</b>	<b>51.5</b>	<b>4.8</b>	<b>0.7</b>	<b>0.4</b>
<b>Euro Area</b>	<b>25.6</b>	<b>3.7</b>	<b>1.7</b>	<b>0.9</b>
Austria	1.1	3.2	1.0	0.0
Belgium	1.6	3.9	2.0	1.5
Germany	8.2	3.1	1.5	1.5
Spain	2.1	5.2	3.0	1.5
Finland	0.5	5.8	0.5	-0.1
France	3.4	3.7	1.0	0.3
Greece	0.3	8.2	2.0	1.0
Ireland	1.1	0.1	1.0	1.0
Italy	2.9	4.4	2.5	0.6
Luxembourg	0.5	0.2	1.0	1.0
Netherlands	3.0	5.0	2.0	-0.3
Portugal	0.4	6.4	2.0	1.0
Slovenia	0.2	4.5	2.0	0.5
United Kingdom	3.6	6.6	-1.0	-1.0
Sweden	1.2	-1.8	-1.5	-1.7
Denmark	0.8	11.5	4.0	2.0
Switzerland	1.5	-3.8	1.0	-0.5
United States	9.5	8.0	1.0	0.5
Japan	4.2	-2.0	-2.0	0.0
Australia	1.5	14.0	-2.0	0.0
New Zealand	0.2	7.8	-3.0	0.0
Canada	2.4	8.2	-2.0	1.0
Norway	0.9	18.0	2.0	-2.5
Iceland	0.0	9.1	0.0	-0.5
<b>Emerging Economies*</b>	<b>48.5</b>	<b>14.5</b>	<b>1.7</b>	<b>1.2</b>
<b>C+E Europe*</b>	<b>8.7</b>	<b>18.0</b>	<b>-1.5</b>	<b>-2.0</b>
Poland	1.1	6.6	0.0	0.0
Hungary	0.6	5.7	4.0	1.0
Czech Republic	0.7	3.5	4.0	0.5
<b>Emerging Asia*</b>	<b>25.7</b>	<b>9.6</b>	<b>3.8</b>	<b>4.2</b>
China	9.5	4.7	5.0	4.5
NIEs*	9.6	9.0	2.0	3.5
Other Asia*	6.6	11.0	2.0	3.5
<b>Latin America*</b>	<b>5.6</b>	<b>15.3</b>	<b>0.0</b>	<b>-1.0</b>
<b>Africa + Middle East*</b>	<b>8.6</b>	<b>25.0</b>	<b>0.0</b>	<b>-3.0</b>

\* Prices in USD



**Table 15 – Export prices of goods (in US dollar)**

(annual percentage change)

	<b>Weight (%)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>World</b>	<b>100.0</b>	<b>11.9</b>	<b>-1.2</b>	<b>1.2</b>
<b>Advanced economies</b>	<b>51.5</b>	<b>9.5</b>	<b>-4.0</b>	<b>1.2</b>
<b>Euro Area</b>	<b>25.6</b>	<b>8.3</b>	<b>-6.9</b>	<b>1.6</b>
Austria	1.1	7.9	-7.7	0.8
Belgium	1.6	8.7	-6.7	2.3
Germany	8.2	7.9	-7.2	2.3
Spain	2.1	9.9	-5.7	2.3
Finland	0.5	10.6	-8.2	0.7
France	3.4	8.5	-7.7	1.1
Greece	0.3	13.0	-6.7	1.8
Ireland	1.1	4.8	-7.7	1.8
Italy	2.9	9.2	-6.2	1.4
Luxembourg	0.5	4.9	-7.7	1.8
Netherlands	3.0	9.8	-6.7	0.5
Portugal	0.4	11.2	-6.7	1.8
Slovenia	0.2	9.3	-6.7	1.3
United Kingdom	3.6	10.2	-2.0	0.6
Sweden	1.2	8.0	-3.8	-0.9
Denmark	0.8	16.2	-4.8	2.8
Switzerland	1.5	11.2	-5.7	0.3
United States	9.5	8.0	1.0	0.5
Japan	4.2	7.1	-1.5	1.4
Australia	1.5	24.9	-1.8	0.8
New Zealand	0.2	16.6	-0.2	0.8
Canada	2.4	12.2	-1.3	1.8
Norway	0.9	25.3	-1.2	-1.7
Iceland	0.0	14.0	-6.3	0.3
<b>Emerging Economies</b>	<b>48.5</b>	<b>14.5</b>	<b>1.7</b>	<b>1.1</b>
<b>C+E Europe</b>	<b>8.7</b>	<b>18.0</b>	<b>-1.5</b>	<b>-2.0</b>
Poland	1.1	8.4	-9.1	0.8
Hungary	0.6	9.1	-6.6	1.8
Czech Republic	0.7	10.9	-5.5	1.3
<b>Emerging Asia</b>	<b>25.7</b>	<b>9.6</b>	<b>3.8</b>	<b>4.2</b>
China	9.5	9.2	6.8	5.3
NIEs	9.6	9.0	2.0	3.5
Other Asia	6.6	11.0	2.0	3.5
<b>Latin America</b>	<b>5.6</b>	<b>15.3</b>	<b>0.0</b>	<b>-1.5</b>
<b>Africa + Middle East</b>	<b>8.6</b>	<b>25.0</b>	<b>0.0</b>	<b>-3.0</b>

## A.2 Commodity price indices

Table 16 – Actual and forecast commodity price indices (in U.S. dollar)

Commodity	Weight	(index in US\$ terms, 2010=100, percentage change on previous period)															
		11/3	11/4	12/1	12/2	12/3	12/4	13/1	13/2	13/3	13/4	14/1	14/2	2010	2011	2012	2013
<b>All commodities<sup>1</sup></b>	100	<b>128</b>	<b>125</b>	<b>134</b>	<b>123</b>	<b>123</b>	<b>120</b>	<b>119</b>	<b>117</b>	<b>117</b>	<b>115</b>	<b>115</b>	<b>115</b>	<b>100</b>	<b>129</b>	<b>125</b>	<b>117</b>
		-5	-3	7	-8	0	-2	0	-2	0	-2	0	0	29	29	-3	-6
<b>Total excl. energy</b>	20,8	<b>121</b>	<b>105</b>	<b>107</b>	<b>103</b>	<b>102</b>	<b>103</b>	<b>102</b>	<b>101</b>	<b>101</b>	<b>101</b>	<b>102</b>	<b>102</b>	<b>100</b>	<b>118</b>	<b>104</b>	<b>101</b>
		-4	-13	2	-4	-1	1	-1	-1	0	0	1	0	30	18	-12	-2
<b>Food total</b>	5,5	<b>130</b>	<b>116</b>	<b>117</b>	<b>117</b>	<b>133</b>	<b>127</b>	<b>123</b>	<b>119</b>	<b>117</b>	<b>117</b>	<b>119</b>	<b>120</b>	<b>100</b>	<b>129</b>	<b>123</b>	<b>119</b>
		-3	-11	1	-1	14	-4	-3	-3	-2	0	1	1	11	29	-4	-3
Cereals	1,4	143	131	131	127	160	158	153	148	142	138	138	138	100	142	144	145
		-5	-8	0	-3	25	-1	-3	-4	-4	-3	0	0	9	42	1	1
Tropical beverages, sugar	2,1	128	113	108	95	96	97	99	100	100	102	103	105	100	126	99	100
		-1	-11	-5	-12	1	0	3	1	0	2	1	1	21	26	-21	1
Oilseeds, vegetable oils	1,9	124	109	118	133	153	137	127	120	117	119	121	124	100	123	135	121
		-2	-12	9	12	15	-10	-7	-6	-2	1	2	2	3	23	10	-11
<b>Industrial raw materials</b>	15,4	<b>117</b>	<b>101</b>	<b>103</b>	<b>98</b>	<b>91</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>96</b>	<b>96</b>	<b>95</b>	<b>100</b>	<b>114</b>	<b>97</b>	<b>95</b>
		-4	-14	2	-5	-7	4	0	0	1	0	0	-1	39	14	-15	-2
Agricultural raw materials	4,3	113	100	97	96	89	90	90	91	92	92	93	93	100	111	93	91
		-3	-12	-3	-1	-7	2	0	1	1	0	1	0	34	11	-16	-2
Textile fibres	0,2	134	119	121	107	97	92	91	91	91	92	93	94	100	150	104	91
		-24	-11	2	-11	-10	-5	-1	0	0	1	1	1	49	50	-31	-12
Wood products	3,1	106	96	92	93	89	89	89	90	90	91	92	92	100	101	91	90
		-1	-9	-5	1	-5	0	0	1	1	0	1	0	24	1	-11	-1
Non-ferrous metals	7,9	112	95	102	94	92	98	99	98	98	98	99	98	100	112	97	98
		-6	-15	7	-8	-3	7	0	-1	0	0	0	-1	37	12	-14	2
Ferrous raw materials <sup>2</sup>	3,2	135	114	114	111	94	91	92	93	94	94	94	91	100	125	102	93
		0	-15	0	-2	-16	-3	1	1	1	0	0	-3	48	25	-18	-9
<b>Energy raw materials</b>	79,2	<b>131</b>	<b>130</b>	<b>141</b>	<b>128</b>	<b>128</b>	<b>124</b>	<b>124</b>	<b>121</b>	<b>121</b>	<b>118</b>	<b>119</b>	<b>119</b>	<b>100</b>	<b>131</b>	<b>130</b>	<b>121</b>
		-6	0	8	-9	0	-3	0	-2	0	-2	0	0	28	31	-1	-7
Coal <sup>3</sup>	4,5	124	116	115	98	92	90	90	95	95	100	105	110	100	123	99	95
		0	-6	-1	-14	-6	-2	0	6	0	5	5	5	38	23	-20	-4
Crude oil	74,6	131	131	142	130	130	126	126	122	122	119	119	119	100	132	132	123
		-6	0	9	-9	0	-3	0	-3	0	-2	0	0	28	32	0	-7

<sup>1</sup> HWWI index, total <sup>2</sup> iron ore, steel scrap <sup>3</sup> steam coal

**Table 17 – Actual and forecast commodity prices indices (in Euro)**

		(index in euro terms, 2010=100, percentage change on previous period)															
Commodity	Weight	11/3	11/4	12/1	12/2	12/3	12/4	13/1	13/2	13/3	13/4	14/1	14/2	2010	2011	2012	2013
<b>All commodities<sup>1</sup></b>	100	<b>120</b>	<b>123</b>	<b>135</b>	<b>127</b>	<b>130</b>	<b>124</b>	<b>123</b>	<b>120</b>	<b>120</b>	<b>118</b>	<b>118</b>	<b>118</b>	<b>100</b>	<b>122</b>	<b>129</b>	<b>120</b>
		-4	2	10	-6	2	-5	-1	-2	0	-2	0	0	36	22	5	-7
<b>Total excl. energy</b>	20,8	<b>113</b>	<b>103</b>	<b>108</b>	<b>106</b>	<b>108</b>	<b>107</b>	<b>105</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>105</b>	<b>105</b>	<b>100</b>	<b>112</b>	<b>107</b>	<b>104</b>
		-2	-9	5	-1	2	-1	-2	-1	0	0	1	0	37	12	-5	-3
<b>Food total</b>	5,5	<b>122</b>	<b>114</b>	<b>119</b>	<b>121</b>	<b>141</b>	<b>131</b>	<b>126</b>	<b>123</b>	<b>120</b>	<b>121</b>	<b>122</b>	<b>124</b>	<b>100</b>	<b>123</b>	<b>128</b>	<b>123</b>
		-1	-7	4	2	16	-7	-4	-3	-2	0	1	1	17	23	4	-4
Cereals	1,4	134	129	133	132	169	164	157	152	146	142	142	142	100	135	149	149
		-3	-4	3	-1	28	-3	-4	-4	-4	-3	0	0	14	35	10	0
Tropical beverages, sugar	2,1	120	111	109	99	102	100	102	103	103	105	106	108	100	120	102	103
		1	-7	-2	-9	4	-2	2	1	0	2	1	1	27	20	-14	1
Oilseeds, vegetable oils	1,9	116	107	119	137	162	142	131	123	121	122	125	127	100	117	140	124
		-1	-8	12	15	18	-12	-8	-6	-2	1	2	2	9	17	20	-12
<b>Industrial raw materials</b>	15,4	<b>110</b>	<b>98</b>	<b>104</b>	<b>101</b>	<b>97</b>	<b>98</b>	<b>97</b>	<b>97</b>	<b>98</b>	<b>98</b>	<b>99</b>	<b>98</b>	<b>100</b>	<b>109</b>	<b>100</b>	<b>98</b>
		-2	-10	5	-2	-5	1	-1	0	1	0	0	-1	47	9	-8	-2
Agricultural raw materials	4,3	105	97	97	99	94	93	93	93	94	95	95	95	100	105	96	94
		-2	-8	0	2	-5	-1	-1	1	1	0	1	0	42	5	-9	-2
Textile fibres	0,2	126	117	123	111	103	95	94	94	94	95	96	97	100	143	108	94
		-23	-7	5	-9	-8	-7	-2	0	0	1	1	1	57	43	-24	-13
Wood products	3,1	98	93	91	96	94	92	91	92	93	93	94	94	100	96	93	92
		1	-5	-2	5	-2	-2	-1	1	1	0	1	0	31	-4	-3	-1
Non-ferrous metals	7,9	105	94	103	97	97	102	101	100	101	101	102	101	100	107	100	101
		-4	-11	10	-6	0	5	-1	-1	0	0	0	-1	45	7	-6	1
Ferrous raw materials <sup>2</sup>	3,2	126	112	114	115	99	94	94	95	96	96	96	94	100	119	106	95
		2	-11	3	0	-14	-5	0	1	1	0	0	-3	57	19	-11	-10
<b>Energy raw materials</b>	79,2	<b>122</b>	<b>128</b>	<b>142</b>	<b>133</b>	<b>136</b>	<b>128</b>	<b>127</b>	<b>124</b>	<b>124</b>	<b>122</b>	<b>122</b>	<b>122</b>	<b>100</b>	<b>125</b>	<b>135</b>	<b>124</b>
		-4	4	11	-7	2	-5	-1	-2	0	-2	0	0	36	25	8	-8
Coal <sup>3</sup>	4,5	116	114	116	102	97	93	92	98	98	103	108	114	100	117	102	98
		2	-2	2	-12	-4	-5	-1	6	0	5	5	5	45	17	-13	-4
Crude oil	74,6	123	129	144	134	138	130	129	126	126	123	123	123	100	125	137	126
		-4	5	12	-7	3	-5	-1	-3	0	-2	0	0	36	25	9	-8

<sup>1</sup> HWWI index, total <sup>2</sup> iron ore, steel scrap <sup>3</sup> steam coal

**Table 18 – Actual and forecast prices of individual commodities (in U.S. dollar)**

		(index in US\$ terms, 2010=100, percentage change on previous period)															
Commodity		11/3	11/4	12/1	12/2	12/3	12/4	13/1	13/2	13/3	13/4	14/1	14/2	2010	2011	2012	2013
Barley	CAN	133 0	134 1	137 2	148 8	162 9	164 1	160 -2	157 -2	154 -2	151 -2	148 -2	145 -2	100 24	132 32	153 16	156 2
Maize	USA	161 -5	145 -10	149 3	142 -4	180 27	172 -5	168 -3	165 -1	163 -1	162 -1	161 -1	161 0	100 15	158 58	161 2	164 2
Rice	THAI	112 13	123 9	109 -11	115 5	119 4	117 -2	114 -3	112 -3	110 -2	108 -2	107 -1	107 0	100 -10	110 10	115 5	111 -4
Wheat	US	129 -10	113 -12	113 0	108 -5	145 34	154 6	147 -4	136 -8	123 -10	114 -7	116 1	118 1	100 9	133 33	130 -2	130 0
Coffee	US,D,F	143 -6	130 -9	122 -7	104 -14	104 -1	106 2	108 2	108 0	109 1	110 1	112 2	114 2	100 28	142 42	109 -24	109 0
Cocoa	US	97 -1	79 -19	75 -5	73 -2	80 9	78 -2	80 3	80 0	80 0	82 2	83 1	84 1	100 8	95 -5	76 -20	81 6
Tea	avg	102 0	95 -7	94 0	93 -1	96 4	99 2	101 2	100 -1	99 -2	98 -1	98 0	100 2	100 4	100 0	96 -4	100 4
Sugar	US	128 17	111 -14	110 -1	95 -14	94 -1	90 -4	94 5	98 4	98 0	103 5	103 0	103 0	100 25	122 22	97 -20	99 2
Soybeans	US	129 0	112 -13	121 8	136 12	159 17	143 -10	133 -7	125 -6	122 -2	124 1	126 2	129 2	100 3	126 26	140 11	126 -10
Soybean meal	US	118 0	101 -14	113 12	138 22	170 23	153 -10	142 -7	133 -6	131 -2	132 1	135 2	137 2	100 -6	115 15	143 24	135 -6
Soybean oil	US	133 -3	121 -9	126 5	125 -1	129 3	113 -12	103 -9	97 -6	95 -2	97 2	100 3	102 2	100 18	131 31	123 -6	98 -20
Cotton	US	113 -37	102 -9	99 -3	87 -12	78 -10	75 -4	75 0	76 2	78 2	79 2	80 1	81 1	100 64	146 46	85 -42	77 -9
Wool	AUS	163 -6	143 -12	152 6	135 -11	123 -9	116 -6	113 -2	111 -2	110 -1	110 0	111 1	112 1	100 32	157 57	131 -16	111 -15
Natural rubber	THAI	135 -3	107 -21	109 1	99 -9	82 -17	90 9	90 0	90 0	91 1	92 1	93 1	93 0	100 81	134 34	95 -29	91 -4
Softwood	S	103 -1	95 -8	91 -4	92 1	89 -3	92 2	92 0	93 1	93 0	93 1	93 0	93 0	100 14	100 0	91 -9	93 2
Woodpulp	FIN	107 -1	95 -11	89 -6	91 2	85 -7	82 -3	82 0	82 0	84 2	84 0	86 3	86 0	100 42	103 3	87 -16	83 -4
Aluminium	GB	110 -8	96 -13	100 4	91 -9	89 -3	95 7	92 -3	91 -1	91 0	91 0	93 3	93 0	100 30	110 10	94 -15	91 -3
Copper	GB	119 -2	99 -17	110 11	104 -5	102 -2	109 7	113 4	113 0	114 1	114 0	111 -2	109 -2	100 46	117 17	106 -9	113 7
Lead	GB	115 -4	92 -20	97 6	92 -6	92 0	98 6	98 0	95 -2	94 -1	98 5	98 0	98 0	100 24	112 12	95 -15	96 2
Nickel	GB	101 -9	84 -17	90 7	79 -13	75 -5	85 13	85 0	85 0	86 0	87 1	88 1	88 0	100 48	105 5	82 -22	86 4
Tin	GB	121 -14	102 -16	112 10	101 -10	95 -6	102 8	105 2	106 1	107 1	108 1	107 -1	106 0	100 51	128 28	102 -20	106 4
Zinc	GB	103 -1	88 -15	94 7	89 -5	88 -2	93 6	90 -2	91 1	93 2	94 1	94 0	94 0	100 30	102 2	91 -11	92 2
Iron ore	BRA	142 -1	113 -20	114 1	112 -1	90 -20	89 -1	89 0	90 2	90 0	90 0	90 0	87 -4	100 62	129 29	101 -22	90 -11
Steel scrap	US	119 3	116 -2	113 -3	107 -5	102 -5	96 -6	98 2	98 0	102 3	102 0	102 0	102 0	100 23	116 16	105 -10	100 -5
Steel scrap	EU	119 3	116 -2	113 -3	107 -5	102 -5	96 -6	98 2	98 0	101 3	101 0	101 0	101 0	100 23	116 16	105 -10	100 -5
Steam coal	AUS	123 1	116 -5	115 -1	97 -16	91 -6	89 -2	89 0	94 6	94 0	99 5	104 5	109 5	100 37	122 22	98 -20	94 -4
Steam coal	SA	127 -3	116 -9	115 -1	103 -10	95 -7	93 -3	93 0	98 6	98 0	104 6	109 5	115 5	100 42	127 27	101 -20	98 -3
Crude oil	avg	131 -6	131 0	142 9	130 -9	130 0	126 -3	126 0	122 -3	122 0	119 -2	119 0	119 0	100 28	132 32	132 0	123 -7

**Table 19 – Actual and forecast prices of individual commodities (in Euro)**

		(index in US\$ terms, 2010=100, percentage change on previous period)															
Commodity		11/3	11/4	12/1	12/2	12/3	12/4	13/1	13/2	13/3	13/4	14/1	14/2	2010	2011	2012	2013
Barley	CAN	133 0	134 1	137 2	148 8	162 9	164 1	160 -2	157 -2	154 -2	151 -2	148 -2	145 -2	100 24	132 32	153 16	156 2
Maize	USA	161 -5	145 -10	149 3	142 -4	180 27	172 -5	168 -3	165 -1	163 -1	162 -1	161 -1	161 0	100 15	158 58	161 2	164 2
Rice	THAI	112 13	123 9	109 -11	115 5	119 4	117 -2	114 -3	112 -3	110 -2	108 -2	107 -1	107 0	100 -10	110 10	115 5	111 -4
Wheat	US	129 -10	113 -12	113 0	108 -5	145 34	154 6	147 -4	136 -8	123 -10	114 -7	116 1	118 1	100 9	133 33	130 -2	130 0
Coffee	US,D,F	143 -6	130 -9	122 -7	104 -14	104 -1	106 2	108 2	108 0	109 1	110 1	112 2	114 2	100 28	142 42	109 -24	109 0
Cocoa	US	97 -1	79 -19	75 -5	73 -2	80 9	78 -2	80 3	80 0	80 0	82 2	83 1	84 1	100 8	95 -5	76 -20	81 6
Tea	avg	102 0	95 -7	94 0	93 -1	96 4	99 2	101 2	100 -1	99 -2	98 -1	98 0	100 2	100 4	100 0	96 -4	100 4
Sugar	US	128 17	111 -14	110 -1	95 -14	94 -1	90 -4	94 5	98 4	98 0	103 5	103 0	103 0	100 25	122 22	97 -20	99 2
Soybeans	US	129 0	112 -13	121 8	136 12	159 17	143 -10	133 -7	125 -6	122 -2	124 1	126 2	129 2	100 3	126 26	140 11	126 -10
Soybean meal	US	118 0	101 -14	113 12	138 22	170 23	153 -10	142 -7	133 -6	131 -2	132 1	135 2	137 2	100 -6	115 15	143 24	135 -6
Soybean oil	US	133 -3	121 -9	126 5	125 -1	129 3	113 -12	103 -9	97 -6	95 -2	97 2	100 3	102 2	100 18	131 31	123 -6	98 -20
Cotton	US	113 -37	102 -9	99 -3	87 -12	78 -10	75 -4	75 0	76 2	78 2	79 2	80 1	81 1	100 64	146 46	85 -42	77 -9
Wool	AUS	163 -6	143 -12	152 6	135 -11	123 -9	116 -6	113 -2	111 -2	110 -1	110 0	111 1	112 1	100 32	157 57	131 -16	111 -15
Natural rubber	THAI	135 -3	107 -21	109 1	99 -9	82 -17	90 9	90 0	90 0	91 1	92 1	93 1	93 0	100 81	134 34	95 -29	91 -4
Softwood	S	103 -1	95 -8	91 -4	92 1	89 -3	92 2	92 0	93 1	93 0	93 1	93 0	93 0	100 14	100 0	91 -9	93 2
Woodpulp	FIN	107 -1	95 -11	89 -6	91 2	85 -7	82 -3	82 0	82 0	84 2	84 0	86 3	86 0	100 42	103 3	87 -16	83 -4
Aluminium	GB	110 -8	96 -13	100 4	91 -9	89 -3	95 7	92 -3	91 -1	91 0	91 0	93 3	93 0	100 30	110 10	94 -15	91 -3
Copper	GB	119 -2	99 -17	110 11	104 -5	102 -2	109 7	113 4	113 0	114 1	114 0	111 -2	109 -2	100 46	117 17	106 -9	113 7
Lead	GB	115 -4	92 -20	97 6	92 -6	92 0	98 6	98 0	95 -2	94 -1	98 5	98 0	98 0	100 24	112 12	95 -15	96 2
Nickel	GB	101 -9	84 -17	90 7	79 -13	75 -5	85 13	85 0	85 0	86 0	87 1	88 1	88 0	100 48	105 5	82 -22	86 4
Tin	GB	121 -14	102 -16	112 10	101 -10	95 -6	102 8	105 2	106 1	107 1	108 1	107 -1	106 0	100 51	128 28	102 -20	106 4
Zinc	GB	103 -1	88 -15	94 7	89 -5	88 -2	93 6	90 -2	91 1	93 2	94 1	94 0	94 0	100 30	102 2	91 -11	92 2
Iron ore	BRA	142 -1	113 -20	114 1	112 -1	90 -20	89 -1	89 0	90 2	90 0	90 0	90 0	87 -4	100 62	129 29	101 -22	90 -11
Steel scrap	US	119 3	116 -2	113 -3	107 -5	102 -5	96 -6	98 2	98 0	102 3	102 0	102 0	102 0	100 23	116 16	105 -10	100 -5
Steel scrap	EU	119 3	116 -2	113 -3	107 -5	102 -5	96 -6	98 2	98 0	101 3	101 0	101 0	101 0	100 23	116 16	105 -10	100 -5
Steam coal	AUS	123 1	116 -5	115 -1	97 -16	91 -6	89 -2	89 0	94 6	94 0	99 5	104 5	109 5	100 37	122 22	98 -20	94 -4
Steam coal	SA	127 -3	116 -9	115 -1	103 -10	95 -7	93 -3	93 0	98 6	98 0	104 6	109 5	115 5	100 42	127 27	101 -20	98 -3
Crude oil	avg	131 -6	131 0	142 9	130 -9	130 0	126 -3	126 0	122 -3	122 0	119 -2	119 0	119 0	100 28	132 32	132 0	123 -7

**Table 20 – Commodities not included in the HWWI index**

	2010=100, percentage change on previous period															
<b>in US\$ terms</b>	11/3	11/4	12/1	12/2	12/3	12/4	13/1	13/2	13/3	13/4	14/1	14/2	2010	2011	2012	2013
Coking coal	165	149	123	108	118	89	89	94	100	105	110	110	100	151	110	97
	-5	-10	-18	-12	9	-24	0	6	6	5	5	0	11	51	-28	-11
Natural gas	131	137	135	139	134	135	137	138	139	142	144	147	100	126	135	139
	6	5	-2	3	-3	1	2	1	1	2	2	2	-5	26	7	3
Steel reinforcing rounds	114	114	133	125	117	118	118	118	119	119	119	121	100	112	123	119
	0	0	17	-6	-6	1	0	0	1	0	0	1	7	12	10	-4
<b>in euro terms</b>																
Coking coal	154	146	124	111	124	92	91	96	102	107	112	112	100	143	113	99
	-3	-5	-15	-10	12	-26	-1	6	6	5	5	0	15	43	-21	-12
Natural gas	123	135	136	143	142	140	141	142	143	146	148	151	100	121	140	143
	8	10	1	5	-1	-2	1	1	1	2	2	2	-1	21	16	2
Steel reinforcing rounds	107	112	134	129	124	122	121	121	122	122	122	124	100	106	127	122
	2	5	20	-4	-4	-1	-1	0	1	0	0	1	13	6	19	-4

**Table 21 – Weights of commodities and commodity groups<sup>1</sup>**

per cent share in:	total	excl. energy		total	excl. energy
<b>HWWI index, total</b>	100		<b>Industrial raw materials</b>	15,4	73,8
<b>Total excl. energy</b>	20,8	100	Agricultural raw materials	4,3	20,6
<b>Food total</b>	5,5	26,2	- Cotton	0,1	0,6
Cereals	1,4	6,9	- Wool	0,1	0,4
- Barley	0,0	0,2	- Hides	0,1	0,7
- Maize	0,7	3,4	- Natural rubber	0,8	3,9
- Wheat	0,5	2,3	- Wood	1,8	8,9
- Rice	0,2	0,9	- Woodpulp	1,3	6,1
Oilseeds, vegetable oils	1,9	9,1	Non-ferrous metals	7,9	37,9
- Soybeans	0,7	3,5	- Aluminium	3,7	17,6
- Soybean meal	0,8	3,7	- Copper	2,5	12,2
- Soybean oil	0,1	0,2	- Lead	0,2	0,8
- Coconut oil	0,1	0,4	- Nickel	0,9	4,4
- Palm oil	0,2	0,8	- Tin	0,2	0,9
- Sunflower oil	0,1	0,5	- Zinc	0,4	2,0
Tropical beverages, sugar	2,1	10,3	Iron ore, steel scrap	3,2	15,3
- Coffee	1,2	5,6	- Iron ore	2,2	10,8
- Cocoa	0,5	2,2	- Steel scrap	0,9	4,5
- Tea	0,2	0,7	<b>Energy raw materials</b>	79,2	
- Sugar	0,4	1,8	- Coal	4,5	
			- Crude oil	74,6	

<sup>1</sup> Based on world imports of OECD countries minus Intra-EU trade, 2005-2007

**Table 22 – Price quotations included in the HWWI Commodity Price Index**

	Variety	Market/ origin	Currency / units of quotation
Barley	Canadian No. 1 Western, nearest month	Winnipeg	CAD/t
Maize	US No. 2 yellow , nearest month	Chicago	US¢ / 56lb bushel
Rice	White Thai Long Grain, 100% B Grade, fob	Bangkok	US\$/t
Wheat	US hard red winter, nearest month	Kansas City	US¢ / 60lb bushel
Soybeans	US No. 2 yellow, in bulk, nearest month	Chicago	US¢ / 60lb bushel
Soybean meal	48 percent protein, fob railroad cars at shipping plants, nearest month	Chicago	US\$/sht
Soybean oil	Raw, ex warehouse, nearest month	Chicago	US¢/lb
Coconut oil	Philippines, bulk, cif Rotterdam	Rotterdam	US\$/t
Palm oil	Malaysian, 5 % , cif England, nearest month	London	US\$/t
Sunflower seed oil	All origins, ex tank Rotterdam, nearest month	Rotterdam	US\$/t
Coffee	ICO composite average indicator price	NY,F,D	US¢/lb
Cocoa	ICCO price, average daily	London/NY	US\$/t
Tea	Average price of Calcutta, Colombo and Kenia auctions		US¢/kg
Sugar	Raw, CSCE, contract No 11, nearest month	New York	US¢/lb
Cotton	Middling upland, 1 1/16 inches, contract No 2, nearest month	New York	US¢/lb
Hides	US, heavy domestic steers, ex warehouse	Chicago	US\$/pc
Wood	Sawnwood, Swedish pine, 63 x 175 mm, cif NW Europe	NW Europe	EUR/m <sup>3</sup>
Rubber	Natural rubber, RSS 1, nearest month	Kuala Lumpur	Malays.¢/kg
Aluminium	Primary High Grade, ex warehouse, cash	London	US\$/t
Lead	Standard, ex warehouse, cash	London	US\$/t
Copper	Grade A, ex warehouse, cash	London	US\$/t
Nickel	Primary High Grade, ex warehouse, cash	London	US\$/t
Zinc	Special High Grade, ex warehouse, cash	London	US\$/t
Tin	Ex warehouse, cash	London	US\$/t
Iron ore	Brazilian, Carajás fines, contract price to Europe, fob	P da Madeira	US¢/dmtu
Steel scrap 1	No. 1 Steel (HMS1)	NE USA	US\$/long ton
Steel scrap 2	No. 1 Steel	Europe	EUR/t
Coal 1	Australian steam coal, average spot price, fob	Newcastle	US\$/t
Coal 2	South African steam coal, average spot price, fob	Richards Bay	US\$/t
Crude oil 1	Dubai, 32% API, spot price, fob	London	US\$/barrel
Crude oil 2	Brent, 38% API, spot price, fob	London	US\$/barrel
Crude oil 3	West Texas Intermediate, 40% API, spot price, fob	USA	US\$/barrel