62nd East Jour Fixe

Soaring Prices in Emerging Europe: Temporary Phenomenon or Lasting Challenge?[1]

1 Introduction

Worldwide inflation soared substantially from mid-2007 to mid-2008, mostly induced by rising world market prices for energy and food. The countries in Central, Eastern, and Southeastern Europe (CESEE) were hit especially hard by these unfavorable developments, given the relatively high share of energy and food in their consumer goods baskets. Against this background, the OeNB invited renowned representatives from academia, international institutions, and CESEE central banks to attend the 62nd East Jour Fixe, which took place on June 18, 2008, in Vienna. The event focused on fostering a better understanding of this price surge, learning from cross-country differences, and discussing the possibilities and limits of policy measures in fighting inflation in the region.

The workshop was opened by *Peter Mooslechner* (Director Economic Analysis and Research, OeNB), who emphasized that inflation constitutes one of the main challenges of current economic policy in CESEE (in the meantime, the aggravating global financial crisis has overshadowed this issue, but it is still highly topical). Mooslechner pointed out that inflation levels and dynamics vary quite strongly across Europe, which raises the question why a global price shock of this dimension has led to such remarkable differences in inflationary consequences across countries. In October 2008, for instance, year-on-year inflation rates ranged from 4.0% (Poland) to 13.7% (Latvia) in the Eastern European EU Member States; three other countries posted double-digit rates (Bulgaria, Estonia, and Lithuania). Except for Hungary and Slovenia, inflation was clearly higher than one year earlier in these countries, with increases ranging from 0.5 to 3.1 percentage points.[2,3] The OeNB's East Jour Fixe was staged at quite the right time when the phenomenon became increasingly severe, which allowed participants to analyze this inflation diversity and to compare the different economic policy strategies. The invited speakers presented first-hand information on cross-country as well as country-specific particularities that revealed a number of important insights.

In the background session, general trends and main inflation drivers – especially food prices – were addressed from a cross-country angle. *Christoph Rosenberg* (IMF) maintained that the Baltic countries and Southeastern Europe were affected the most by food and energy inflation, and pointed to necessary structural reforms to increase the respective supply across the CESEE region and beyond (e.g. arable land reforms alongside farming infrastructure improvements). *Zdenek Lukas* (The Vienna Institute for International Economic Studies – wiiw) stressed that the

[1] *Summary compiled by Markus Eller with input from Claudia Zauchinger.*

[2] *For a more detailed comparison of recent inflation developments across CESEE and a discussion of monetary policy decisions and inflation expectations, see Developments in Selected Countries, pp. 8–49.*

[3] *At the same time, however, we have to keep in mind that soaring prices are not restricted to emerging Europe alone. They have become an almost worldwide challenge. For example, Austria's inflation rate reached 4% in June 2008 – the highest rate in this country over the last 15 years – and was still considerably elevated at 3.0% in October 2008. Within the euro area, inflation rates range from 2.5% to 5.8%, and the increase compared with one year earlier ranges from 0.3 to 4.2 percentage points.*

rise in processed food prices was highest from mid-2007 and emphasized that the main reasons for the price hikes were higher agricultural production costs (also due to higher energy prices) and a lack of competition in retailing and wholesaling. As *Przemysław Woźniak* (Center for Social and Economic Research – CASE) pointed out, the commodity price surge came on top of recently accelerating price level convergence between emerging Europe and the euro area. Woźniak showed that for most of the CESEE countries, food price convergence trajectories lie below those for general consumer goods prices, indicating that food could have been underpriced so far. *Gert Wehinger* (OECD) stated that inflation should recede soon, as global growth was slowing and a possible speculative bubble in food and commodity markets was deflating, but long-term supply- and demand-side price pressures would remain. An adequate policy response should consist of enhancing competition, increasing energy efficiency, or promoting second-generation biofuels.

The subsequent policy panel brought together seven central bank representatives from the region who discussed the surge of inflation from their respective countries' perspective: *Ágnes Csermely* (Director, Magyar Nemzeti Bank), *Diana Dragutinovic* (Vice Governor, Narodna banka Srbije[4]), *Valentin Lazea* (Chief Economist, Banca Naţională a României), *Märten Ross* (Deputy Governor, Eesti Pank), *Peter Ševčovic* (Board Member, Národná banka Slovenska), *Boris Vujčić* (Deputy Governor, Hrvatska narodna banka), and *Tina Žumer* (Advisor to the Governor, Banka Slovenije). The following conclusions can be drawn from their discussions: (i) higher price pressures will indeed remain a longer-term macroeconomic challenge for emerging Europe; (ii) uncertainty about the future development of prices is a key issue at this point; (iii) it is a special task for monetary policy to contain inflation expectations via sufficient transparency, improvement of inflation forecasts (in the case of inflation targeters), and proper communication with social partners so as to dampen the risk of second-round effects; (iv) increasing wage dynamics call for particular caution, especially considering the decline in productivity growth; (v) a determined reaction by central banks is necessary at this point, as a delayed response would possibly be much more costly; (vi) rapid credit growth has contributed to the acceleration of inflation (but may be a less severe factor going forward, given the incipient deceleration of lending dynamics as a consequence of the international credit crunch in several but not all CESEE countries).

All the speakers provided short summaries of their presentations that form the basis for this contribution.[5] Section 2 recapitulates the background session. Section 3, which sums up the panel discussion, is split into two parts: contributions debating appropriate monetary policy strategies on the one hand, and on the other hand contributions elaborating country-specific reasons for the recent surge in inflation.

[4] *Diana Dragutinovic has meanwhile been appointed the Republic of Serbia's Minister of Finance.*

[5] *The individual summaries reflect developments up to June 2008.*

2 Background Session: Recent Surge in Inflation in Emerging Europe and Driving Factors

Christoph B. Rosenberg (IMF Regional Representative for Central Europe and the Baltics) opened the background session with cross-country comparisons of inflation trends, their impact and appropriate policy responses.

Global price trends: Starting in mid-2007, worldwide food and energy prices have trended sharply higher. This follows several decades of flat or declining global commodity prices. The current price boom is unusual in that it is broad-based (including oil, food and metals) and has been remarkably long-lasting. For example, the average length of past crude oil booms was about 18 months, and the price increase from trough to peak came to some 50%; the current episode has already lasted almost 80 months, with prices rising by some 250% since the last turning point in December 2001. The reasons for these trends have been widely discussed. Some of the main drivers include the rising demand from emerging market countries, the increasing role of biofuels, as well as supply bottlenecks and short-term factors like political tensions and weather conditions.

Impact on external balances: As a first approximation, the effect of the recent price increases depends on countries' trade balance with respect to food and energy. There are substantial differences between European countries. The new EU Member States (NMS) will be mainly affected through their negative energy balance. Within the region, the Baltics and Southeastern Europe face the highest risks, while Russia as an energy exporter will benefit from oil price hikes.

Impact on consumer prices: Since mid-2007, the Harmonised Index of Consumer Prices (HICP) in the NMS has surged, driven primarily by food and, more recently, energy price inflation. This was even the case in countries where the exchange rate has been appreciating lately, such as Poland, the Czech Republic and Slovakia. Worryingly, core inflation in the NMS has also been creeping up, suggesting that higher food and energy prices may be spilling over into inflation expectations. The same factors have also been at work in euro area countries, but the process started more recently and has been more muted. The Baltic and Southeastern European countries will again be affected the most, but also Russia and Ukraine. One of the key reasons for these intra-regional differences is the fact that energy and food have a relatively higher weight in the consumption baskets in poorer Eastern European countries, especially the Balkans (chart 1). Local supply conditions may also be playing a role, as Romania, Bulgaria and Ukraine experienced a poor harvest in 2007 (chart 2). Ceteris paribus, the higher impact of food and energy prices may make it more difficult to meet the Maastricht inflation criterion for countries aspiring to join the euro area.

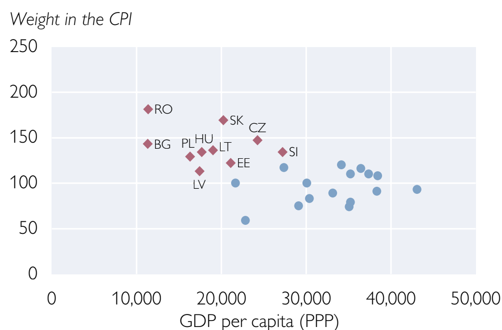
Macroeconomic context: External price pressures due to commodity prices come on the back of convergence-related overheating pressures in the region, which over the last years have been exacerbated by loose monetary and fiscal policies. These underlying trends include:

- Price convergence. Higher inflation in the NMS is a natural by-product of real convergence. The relative price level has been increasing as these countries have been closing the income gap vis-à-vis the old EU Member States.
- Large current account deficits. A number of countries in the region have seen very large external imbalances in recent years. A recent IMF Working Paper by Rahman (2008) found that in the Baltics and in Southeastern Europe,

Chart 1

Energy and Food Weights in the Consumer Basket in the EU

Energy



Food

Source: Eurostat.

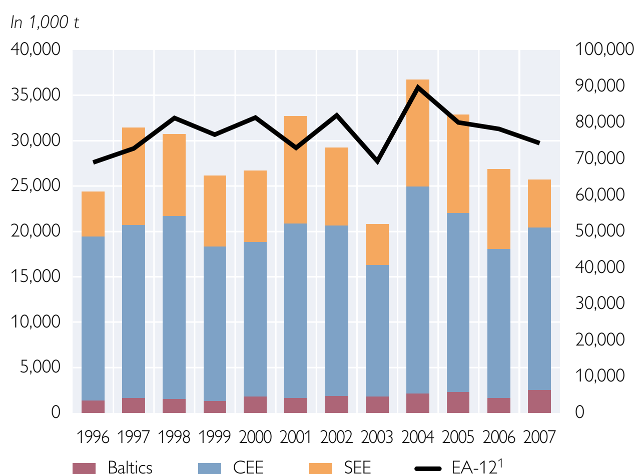
current account deficits by far exceed what would be suggested by economic fundamentals. Excessive deficits are another symptom of overheating pressures, but in some countries are also rooted in structural problems.

– Loose fiscal policies. Budgetary policies have been procyclical in many countries in the region, adding to domestic demand pressures. This is particularly the case in the Baltic countries and Romania, where structural balances deteriorated in the period from 2003 to 2007. In general, countries should have made better use of the recent cyclical upswing to consolidate their public finances.
– Loose monetary policies. Similarly, monetary conditions have loosened recently, as measured by the difference between actual interest rates and those suggested by the Taylor rule (chart 3). The Baltic countries – that have no con-

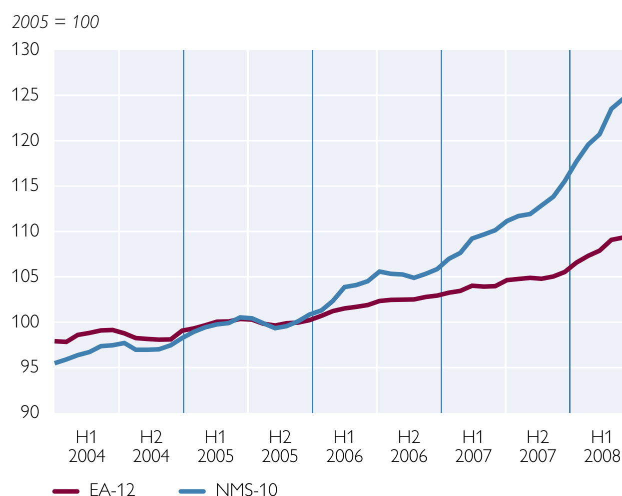
Chart 2

Wheat Output and Food Price Indices

Wheat Output 1996–2007



Food Price Indices

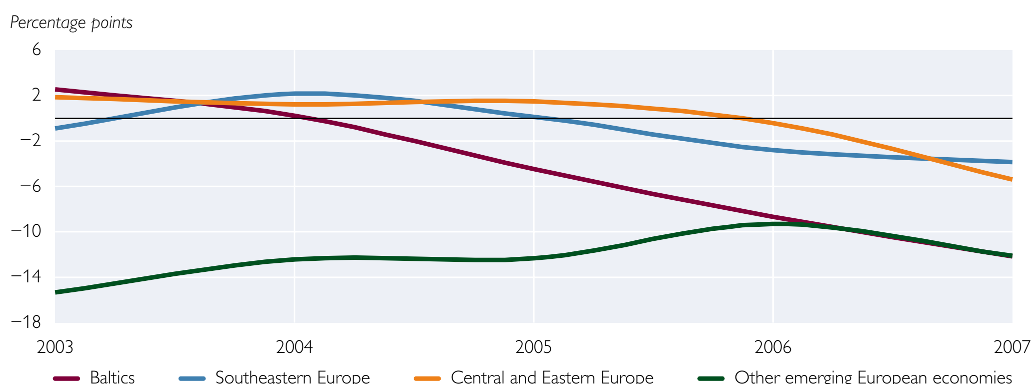


Source: Eurostat and IMF calculations.

[1] *Right-hand scale.*

Chart 3

Emerging Europe – Lending Interest Rates minus "Ideal" Taylor-Rule-Based Rates



Source: IMF Regional Economic Outlook 2008.

trol over their monetary policy, given their fixed exchange rate regimes – have seen a very substantial loosening. This has fueled a very strong growth of private sector credit. This credit boom has now come to an abrupt halt, as Swedish parent banks started to slow the supply of financing last summer.

Policy response to date: Few countries have so far reacted to the emerging commodity price pressures. Policy responses that did take place have been rather piecemeal and, aside from the EU as a whole, mainly concentrated in smaller Southeastern European countries. Measures include (i) lower import duties on grain in the EU, Russia, FYR Macedonia, and Kosovo; (ii) export taxes in Russia and Croatia, export quotas in Ukraine, and an export ban in Serbia; (iii) lower VAT and excises on food (Lithuania), on public transport (FYR Macedonia), and on fuel (Croatia); (iv) use of state commodity reserves in FYR Macedonia, Moldova, Montenegro, and Ukraine; (v) support to agriculture[6] in Belarus, Croatia, and Moldova; (vi) moral suasion in FYR Macedonia, Montenegro, and Moldova; and (vii) tighter monetary policy, whereby most countries with flexible exchange rates have been increasing policy rates with the aim of fending off second-round effects.

Recommended policy responses: Much of the appropriate policy response will depend on whether the commodity price shocks are judged to be temporary or permanent. While the answer to this question may not be fully resolved yet, the IMF is advocating policies based on a number of principles that have proven useful in such episodes in the past. These include:

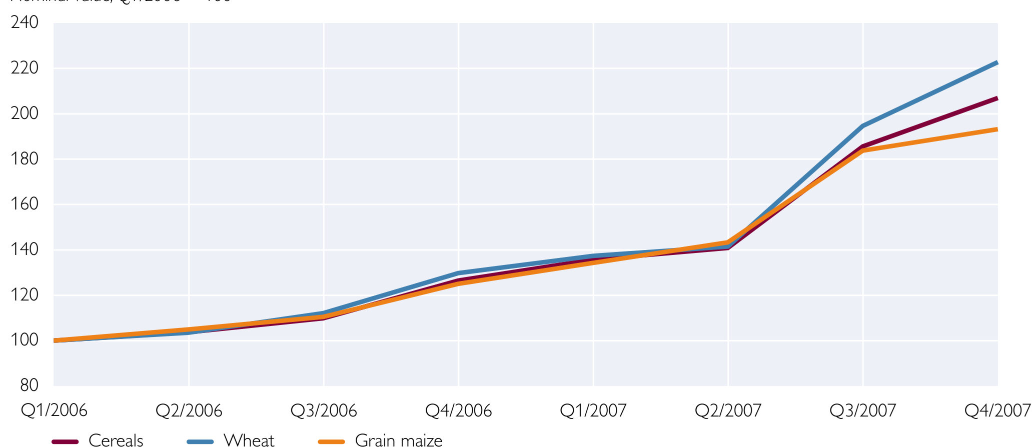
– Head off second-round effects by tightening monetary policy (where this is possible), restraining wage increases, and managing inflation expectations by communicating to the public that these price spikes are not necessarily set to continue.
– Grant social assistance if fiscal space permits. It is important that any such help is temporary (sunset clauses) and strictly targeted to the most needy.

[6] *Importantly, the EU suspended its set-aside policy which required that 10% of all agricultural land is withheld from agricultural production.*

Chart 4

Doubling of Grain Prices in the EU

Nominal value, Q1/2006 = 100



Source: Eurostat, author's calculation.

Note: Price indices of cereals refer to the price indices for wheat and grain maize.

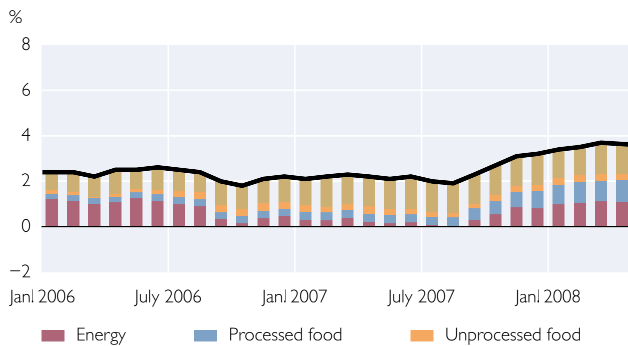
– Pursue structural reforms, especially those aimed at increasing the supply response in food production. For the EU, this may require a rethinking of the common agricultural policy (with more emphasis on funds to improve the market infrastructure rather than direct support to farmers) and a reevaluation of existing biofuel policies.
– More generally, we are encouraged that the ECFIN meeting in Luxembourg confirmed the agreement reached in Manchester in September 2005 whereby "distortionary fiscal and other policy interventions should be avoided." In particular, we do not think that ad hoc reductions of taxes on fuel are a good idea in the present circumstances.

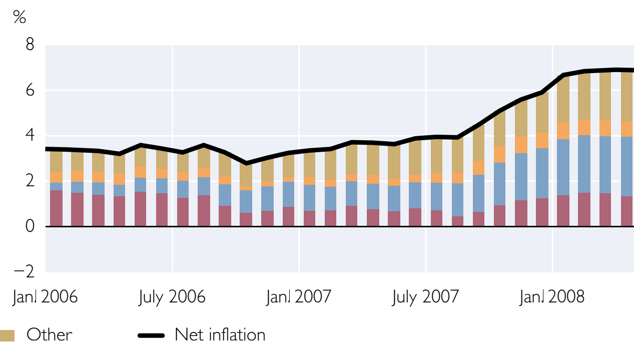
Zdenek Lukas (Senior Economist, wiiw) elaborated the reasons for food price increases in CESEE – one of the main sources for the inflationary hike from mid-2007 to mid-2008.

In the past, fluctuations in world market prices for agricultural products were mostly driven by global weather conditions. More recently, the rise in the production of biofuels has created an additional link between the energy and agricultural sectors, as changes in the demand for fuel impact on markets for agricultural goods. As a result, the interdependence between the agro-food and the energy sectors has intensified and become more complex. Rising energy prices have strong effects on costs in agriculture, because the sector is very energy-intensive, particularly with regard to transport and nitrogen fertilizers. At the same time, the promotion of biofuel production is in part designed to protect against higher crude oil prices. In sum, strongly expanding global demand for grain because of rising food consumption and biofuel production has resulted in historically low stock levels and historically high grain prices. The latter have attracted share traders (financial speculators) who have increasingly invested into grain and other agricultural commodities, thus further contributing to rising prices.

Chart 5

Contribution to Year-on-Year HICP Inflation





Energy | Processed food | Unprocessed food | Other | Net inflation

Source: Eurostat.

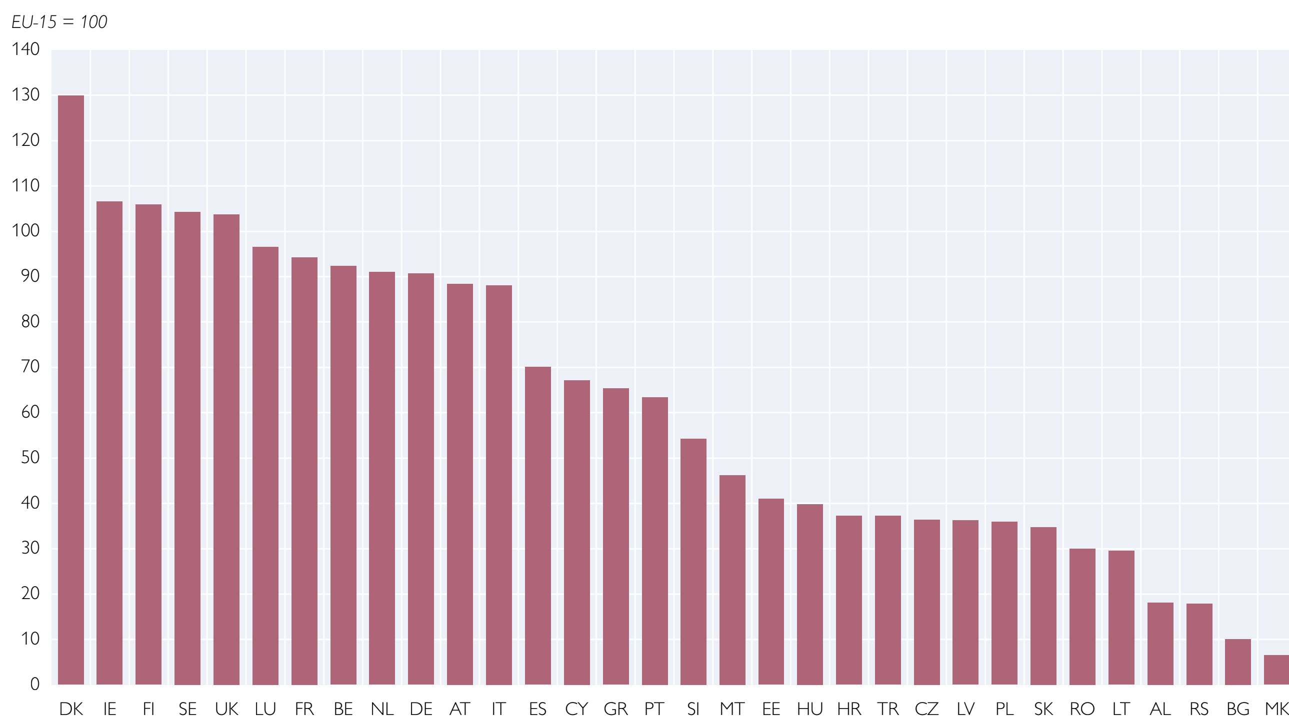
Note: Unprocessed food includes meat, fish, vegetables and fruit; processed food includes other food items (mostly grain products; dairy products, all beverages and tobacco).

Agro-food prices in the NMS-10 have expanded faster than in the EU-27. The highest increases among the NMS are found in Bulgaria and the Baltic countries, the lowest in Poland and Slovakia. This is partly due to the fact that the share of food in the consumer basket is higher in the former group of countries, and their national currencies are all pegged to the euro. As a result, imported inflation in euro terms was fully transferred onto domestic prices, while in Slovakia and Poland strong currency appreciation acted as a buffer against imported inflation. There are also significant differences in the competitive environment. Only a few international supermarket chains are interested in the EU's periphery in view of its small population (market size) and limited transport infrastructure, so competition is limited in Bulgaria and in the Baltic countries. Consequently, industry margins in retailing and wholesaling are high. By contrast, in the Central European food markets, e.g. in Poland and Slovakia, strong competition has mitigated the rise in food prices.

Thanks to promising forecasts for the 2008 grain harvests in Europe, grain prices may ease from this year's record levels. However, many agricultural commodity supplies will continue to be tight as stocks are not likely to be promptly (or sufficiently) replenished in the short run. As a result, it is very unlikely that prices will drop to pre-crisis levels anytime soon. This is true especially with regard to oilseeds and maize, as the latter is a major staple food in poor developing countries and an important input for bioethanol production. Both are important inputs for fodder production needed for expanding production of meat and dairy products, which are in high demand in emerging markets such as China, Russia, and India.

Chart 6

The Comparative Price Level of GDP in 2007



Source: Eurostat.

Agro-food products were cheap commodities for several decades, but the era of cheap food is definitely over. This problem will get worse as long as the U.S. and the EU continue to produce first-generation biofuels that are based on agricultural commodities.[7]

In all likelihood, the ratio between agricultural and non-agricultural prices will continue to go up in the long term, as will the ratio between incomes earned in the agro-food sector and other incomes, both urban and rural. Some regions specialized in agriculture could become more affluent than they were in the past. This is true mostly for developing countries, though several rural regions in the NMS could also gain in this context.

Przemysław Woźniak (Senior Economist, CASE, Warsaw) emphasized the impact of structural price convergence factors on the recent inflation surge in emerging Europe.

Even though the recent price surge might seem particularly severe in emerging Europe (EE) including the new EU Member States and Southeastern Europe

[7] *Contrary to first-generation biofuels (that are primarily generated from agricultural crops), second-generation biofuels are produced from lignocellulosic or wood resources using new, advanced technologies that make it possible to convert this biomass to (energy-rich) liquid fuels. However, to date, these second-generation biofuels are even more expensive than first-generation biofuels.*

Chart 7

Comparative Price Level of GDP and GDP per Capita in PPS in 2006

Source: Eurostat and author's calculations.

Note: Luxembourg is not included as it is an outlier regarding GDP in PPS (233% of the euro area average)| its CPL of GDP in 2005 was 109.

(SEE), price levels in the region are still generally well below those in the EU-15 (see chart 6).

Out of the 39 countries currently covered by the Eurostat/OECD Comparative Price Level (CPL) study (European Economic Area, SEE, Japan and the U.S.), the bottom 18 countries with the lowest price levels are those of EE, with the countries of SEE ranking lowest and posting levels that are generally well below 50% of the EU average. While theory points to a close causal relationship between income and price levels (confirmed by chart 7), clearly GDP per capita does not explain the entire variability of price levels. As Dreger et al. (2008) pointed out, price levels in the EU may also depend on the level of competition in individual markets, approximated by the openness to foreign trade and other factors such as taxation or transport costs.

Over the last one to two years, inflation rates have risen to new highs, with a clear positive (exchange rate-adjusted) inflation differential in EE vis-à-vis the EU-15, which points to the continuation of the convergence process. This trend is also confirmed by CPL indices that have been rising in recent years across EE with the exception of Croatia and FYR Macedonia. While prices of tradable food and consumer goods in EE are much closer to the euro area average than those of services (57% to 84% compared with 22% to 62%), the scale of recent upward adjustments seems comparable. Also, energy and food, which have been blamed for the recent inflation peak, exhibited only slightly higher upward dynamics than the rest of consumer goods, pointing to the fact that upward price pressures in EE might also be attributable to factors other than the recent global commodity price surge. Beyond that, food price convergence trajectories lie still below those for

general consumer goods prices for most of the countries, indicating that food could have been underpriced so far.

The period from 1999 to 2004 was marked by relative stability (or reversing trends) for most EE countries, while price levels started to rise faster after 2004. Two major factors might have been at play: accelerating economic growth and strengthening domestic currencies. The GDP growth differential vis-à-vis the euro area rose markedly in recent years (with the exception of a few countries), thus boosting relative income in EE and, through the Balassa-Samuelson effect, raising prices of nontradables and tradables alike (the latter, inter alia, via the *non-tradable* element in retail prices). Moreover, buoyant domestic demand was accompanied by high wage dynamics and underpinned by unprecedented credit growth amid generally lax fiscal and monetary policies, which exacerbated inflationary pressures.

Likewise, strengthening currencies are speeding up convergence through rising prices in EE in comparison with those in the euro area. In recent years (2007 and 2008 in particular) the nominal appreciation of EE currencies accelerated substantially – especially compared with the period from 2000 to 2004, when most domestic currencies were weakening.

Some other factors that might have played a role in increased inflation relative to the euro area are a generally lower openness to trade in EE (non-EU SEE in particular), weaker competition in the retail sector and higher reliance on poorly tradable market-specific agricultural and food products. On the other hand, a positive energy inflation differential may result from obsolete and inefficient technologies in the energy industry and the ensuing costly investments. Finally, the complex construction of CPL measures implies a high likelihood of rising values with increasing quality of goods and services; this phenomenon would leave inflation unchanged.

Gert D. Wehinger (Economist, Financial Affairs Division, Directorate for Financial and Enterprise Affairs, OECD, Paris) concluded the background session as discussant and provided the following comments.[8]

(A) Macro-background and explanations

One of the moot questions was whether the recent surge in inflation is a temporary phenomenon or a lasting challenge. It may be useful to look at explanations for high and chronic inflation that have helped us understand the phenomenon in the past – in particular the high-inflation episodes in Latin America in the 1970s and 1980s. Basically, the dividing line ran between structuralists and monetarists, and certainly both have added to the understanding of inflation and its propagation mechanisms.

Structural explanations: For over a decade we have been observing a positive supply "shock" (actually, a structural development rather than a shock-like event), driven by emerging economies, in particular China and India (re-)entering the world economy, which has put downward pressure on prices globally. Now, over

[8] *The views expressed in this contribution are those of the author and do not necessarily reflect those of the OECD or the governments of its member countries. The author is solely responsible for any errors.*

the past few years, a *positive demand "shock" from these emerging economies* has started to counterbalance this effect, and prices for energy and food are among the most visible items affected. It seems that the great moderation (as some economists called the past two decades or so of disinflation and macroeconomic stability) may have come to an end.[9]

Monetary explanations: Partly linked to the China phenomenon are excess savings at a global level, resulting in *abundant global liquidity*, which has shown up in asset price bubbles and low interest rates (which were among the root causes of the U.S. housing debacle and subprime crisis). This liquidity is not only invested in foreign assets (especially U.S. treasuries), but is finally also starting to show up in emerging economies' consumption demand and causing price levels to rise, commodity prices in particular (see chart 8).

Both structural and monetary explanations seem to indicate that the phenomenon of surging prices may be longer lasting than policymakers may have feared, and because underlying factors are global, domestic policies to combat inflation turn out to be less effective.

It is important to emphasize the structural developments leading to more long-term price pressures. For example, while the technologies we use have become more energy efficient, energy demand has grown per capita. In 1970, 2.2 barrels of oil equivalent were necessary to produce USD 1,000 of real GDP, while today it is only 1.3 barrels. However, improving living standards have lifted per capita annual energy consumption from 10 barrels of oil equivalent in 1970 to 12.5 barrels today. The strong crude oil demand from emerging economies is a reflection of this phenomenon.

(B) Reasons for food price increases

On the supply side, bad weather conditions have contributed to supply shortages, and rising fuel and fertilizer prices have increased production costs. This does not seem to be a temporary phenomenon only, as climate change may lead to more bad harvests in the future.

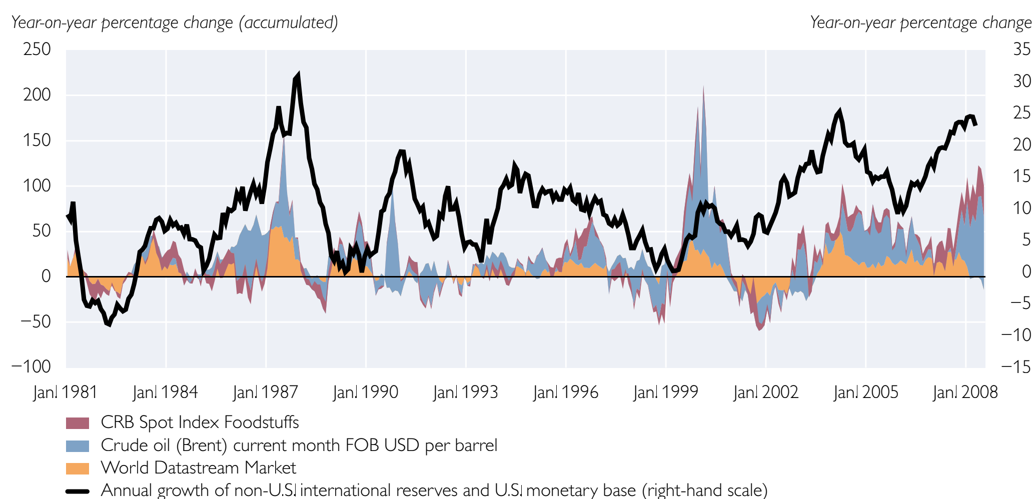
On the demand side, the strong trend growth in global demand for food has put upward pressure on prices, and more recently the promotion of, and rising demand for, biofuels has added to this development. Some may add speculative demand as one of the driving factors, which may be true in the short run. In the long run, however, speculation will hardly drive prices off their equilibrium levels. While trading on commodities markets and in commodity derivatives has seen an upturn in recent years, derivatives data do not currently indicate that speculation was a major factor in the recent surge in prices.

Cyclically, price pressures may be expected to alleviate somewhat. Even though long-term supply and demand conditions are likely to remain broadly unchanged and will keep putting upward pressure on food prices, they could rise less rapidly or even fall as global growth slows and a possible speculative bubble deflates.

[9] *As an aside: Potentially, such a structural shift in global demand for food can improve agricultural terms of trade and should benefit the food producers. However, it turns out that such benefits are greatly diminished as these producers are also hurt by higher prices as food and energy consumers.*

Chart 8

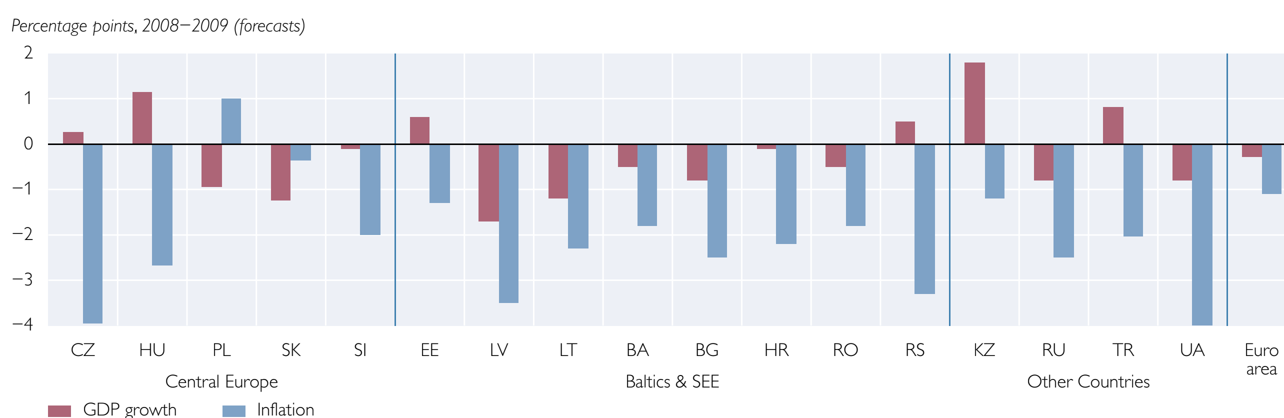
Asset and Commodity Price Bubbles vs. Global Liquidity



Source: Thomson Financial Datastream, OECD.

Chart 9

Disinflation Comes at a Price



Source: OECD, UniCredit Group CEE Research Network.

(C) Some policy implications

In many CESEE countries inflation is still relatively high (compared with the euro area) due to specific domestic factors (including convergence), and the waning of these factors in conjunction with successful stabilization policies has contributed to disinflation. Inflation forecasts are generally on the downside – but so are growth forecasts: disinflation comes at a price (see chart 9).

In the specific context of rising food and energy prices, various structural policies may be conceived to supplement monetary and fiscal policy measures so as to facilitate disinflation. Such policies, which are also more long-term oriented, may include (i) measures to enhance competition, (ii) cutting back distortionary policies to incentivize supply, (iii) measures to increase energy efficiency, (iv) incentives for switching to second-generation biofuels, and (v) regulatory policies, including those addressing speculation.

3 Panel Discussion: What to Do about Inflation? The Possibilities and Limits of Policy Measures

3.1 Appropriate Monetary Policy Strategies

Ágnes Csermely (Director Monetary Strategy and Economic Analysis, Magyar Nemzeti Bank) opened the panel discussion with her statement on How to respond to an imported inflation shock in a small open economy – The case of Hungary.

From the perspective of a small open economy that is a commodity importer, recent developments appear as a series of terms-of-trade shocks, which influences both growth and inflation via compound propagation mechanisms.

Models currently used for monetary analysis do not provide unambiguous policy advice about the optimal policy reaction to a terms-of-trade shock. A shock to import prices opens the inflation and the output gap in the opposite direction, and – assuming the shock is temporary or one-off – the inflation gap peters out relatively quickly. As a result, the conventional Taylor-type reaction functions tend to suggest almost full monetary accommodation. In this setting, the modeling challenge arises from the altered time pattern of the shocks. While the model is estimated on past data, we have seen a new pattern over the last two years, which can only be emulated as a series of shocks, all of them characterized by the old, low persistence parameter.

The results change dramatically when the desirable policy is approximated by an endogenous optimal interest rate path in a Dynamic Stochastic General Equilibrium model framework. In such a model, the terms-of-trade shock has a negative effect on potential GDP, so that an optimizing policy puts less emphasis on smoothing output. Both factors, the longer horizon and the separation of potential and cyclical components of growth, suggest a much stronger reaction to inflation. Nevertheless, in the current situation it is particularly difficult to draw quantitative conclusions from the simulation exercises. In addition to the usual problem of disentangling cyclical and potential components of growth in real time, communication of monetary policy becomes particularly demanding. The concept of flexible-price potential output is far too difficult to explain to the general public, and people perceive that the central bank's policy amplifies adjustment costs to the real economy.

Finally, standard models assume that inflation expectations are well anchored. The period of temporarily high inflation becomes protracted as a result of import prices growing continuously, which increases the risk that expectations get stuck at the observed high inflation level. Theory suggests that fast and decisive monetary tightening is required when the credibility of the inflation target starts to weaken.[10] But how far we can go without endangering the central bank's credibility and when should we opt for preemptive tightening? Standard models give little advice on these issues.

As far as Hungarian monetary policy is concerned, in the recent past we faced a dilemma that was similar – although of domestic origin – to the current one. The fiscal consolidation program introduced in the second half of 2006 raised inflation (due to indirect tax and regulated price increases) and simultaneously

[10] *See Blinder, A. S. 1999. Central Bank Credibility: Why Do We Care? How Do We Build It? NBER Working Paper 7161.*

held back economic activity. At that time, it was reasonable to assume that the inflationary impact of the fiscal adjustment would be temporary; moreover, the lags in the transmission process would have prevented an efficient monetary policy response anyway. Therefore, Magyar Nemzeti Bank (MNB) decided not to offset the direct inflationary impact of the fiscal measures; instead it concentrated on potential second-round effects. As the fiscal shock was accompanied by a negative risk premium shock and a weaker exchange rate, monetary tightening was warranted. In the second half of 2006, the MNB hiked its key interest rate by 150 basis points.

Later, just when the inflationary impact of the fiscal consolidation package started to fade away, oil and food prices began to surge. The MNB publishes forecasts conditional on commodity price developments based on market and expert information. In the recent forecasting rounds, we had to revise upward oil and food price assumptions. Higher commodity prices led to a slower forecast disinflation path, while the deteriorating global growth outlook restrained the recovery of the economy to potential growth level.

Ignoring a temporary spike in inflation once does not necessarily hurt the central bank's credibility, but behaving in a similar way repeatedly might jeopardize it. It might send the wrong signal to economic agents that the central bank tolerates above-target inflation, and it makes price and wage setting adjust to the perceived high inflation level. In order to prevent inflation inertia from increasing, the MNB had to start the tightening cycle in March; so far, it hiked the repo rate by 100 basis points.

Diana Dragutinovic (then Vice Governor, Narodna banka Srbije) discussed the reaction to inflation shocks from the perspective of Serbia as an inflation-targeting country.

This statement comes in support of inflation targeting (IT) in a period when many question the capacity of IT regimes to sustain low inflation against the backdrop of soaring commodity and food prices. The question we are facing is whether we are witnessing a repetition of the 1970s and their monetary policy challenges or whether the current inflation rise is a temporary blip. What is the appropriate reaction – benign negligence (that backfired in the 1970s in countries like the U.S. or the U.K.) or decisive restriction (paying off in Germany, Japan or Switzerland)?

The appropriate reaction to an inflation shock depends on its duration and source. Three different durations are debated today in the context of the oil price shock: (i) the shock raises the oil price level permanently, (ii) the shock raises the oil price level only temporarily, or (iii) the shock raises oil price inflation for a prolonged period. The appropriate IT-consistent policy response will differ in each case:

– In the case of a permanent inflation shock, a decisive reaction to full headline inflation is needed. Limiting the reaction to secondary core inflation effects or a wait-and-see approach are bound to lead to rising inflation expectations and falling credibility, which will need to be tackled with even tighter monetary policy later on.

- A temporary level shock, in contrast, can safely be ignored. All three different policy reactions have similar inflation profiles. Reaction to full headline inflation, however, would bring about unnecessary nominal and real fluctuations.
- An intermediate case of a permanent level shock is the most ambiguous, but the core inflation reaction seems to offer a good compromise between the concerns for price and output stability.

The experiments show difficulties in deciding on the monetary policy reaction ex ante under imperfect information about the nature and duration of the shock. Many countries, including Serbia, initially thought that the inflation shock was temporary, and perhaps underestimated the nature of the shock by overplaying the importance of the food price shock and downplaying that of the oil price. These assessments did not require much reaction apart from focusing on the secondary spillovers to core inflation. Many countries were also concerned about unnecessarily restraining growth at a time when the global financial turmoil made the financing of emerging markets' growth more expensive and a global slowdown more likely. Among the established IT countries, inaction was further supported by the fact that long-term inflation expectations were anchored at inflation targets. As time progressed and more information became available, many reevaluated the responses to rising inflation. In particular, the shock proved to be more persistent than initially expected. Information about its origins also changed, as the price of oil came to replace that of food as its main driver. Many became more concerned about higher and persistent inflation, and tightened monetary policies, including the ECB. Also the IMF recently urged countries to make inflation fight a priority.

Serbia's example is also illustrative. Initially, when the food price shock hit the country in mid-2007, the authorities considered it to be only temporary and signaled only a benign reaction. Later on they were caught by surprise by the persistence and severity of the shock. The initially low inflation expectations (that were not enough anchored to targets yet) began rising rapidly, forcing the central bank to react to the full scale of the shock.

Märten Ross (Deputy Governor, Eesti Pank) discussed appropriate monetary policy rules from the perspective of Estonia's currency board.

Looking at inflation developments in Estonia over the last five to six years, the price level change was not much out of line with real convergence (at least until very recently). Incomes rose by close to 7% to 8% on average, and the inflation rate increased by roughly 5%. As a double check, one should recall that the increase in Estonian real exchange rates in this century was no higher than in other NMS.

As expected, the fixed exchange rate and open trade regime delivered an inflation rate in the nonenergy tradable goods sector that was close to the euro area level. At the same time, EU accession-related supply shocks in the labor market and the financial market brought about a one-off jump in domestic demand and wages, thereby pushing up also services prices. While this increase coincided broadly with the overall increase in global inflation, these processes have a different background and have therefore shown also subsiding tendencies recently. However, the most important factors pushing inflation higher over the last year were global pressures from energy and food markets.

What we can and cannot do with monetary policy in this environment is quite a problem. Individual (small) countries cannot target global inflation – we simply have to adjust to that reality. Technically, Estonia (as other NMS) is affected more strongly by these pressures than older EU countries, as the share of food and energy is bigger in Estonia's consumer basket. If anything, the NMS are therefore under even bigger pressure to intensify a restructuring of the economy in order to safeguard society from global shocks more efficiently. At the same time, the convergence-related inflation differential vis-à-vis the euro area is not a problem to the extent that monetary policy remains credible and transparent. The problem here arises when the public does not understand or does not believe in monetary rule.

What is the role for monetary rule then? In my understanding, the most important fundamental aim of monetary policy in this environment should be to support, as much as possible, transparency in price formation and give adequate future guidance on price levels in general, but also on relative prices in particular. Simplicity could therefore be another helpful feature of monetary policy rule. In addition, it is of upmost importance to avoid raising unfounded hopes like "we are doing everything to keep food prices (relatively) low." Understanding the limits of the monetary rule definitely remains crucial also for state budget planners.

The functioning of the currency board in Estonia has been quite satisfactory in light of the developments mentioned above. The problems arose at an early stage of the supply-side shock, with overoptimistic expectations of future income and potential growth emerging in 2005 and early 2006. However, with the exchange rate serving as a credible anchor, excesses started to be corrected relatively quickly, as the economy could no longer afford price misalignment vis-à-vis our competitors. If expectations are of any value, then recent data show that the currency board has fixed them well in the current global turmoil.

Peter Ševčovic (Board Member, Národná banka Slovenska) provided facts about the changing nature and driving forces of inflation in Slovakia with a view to shaping long-term monetary policy strategies.

As in other transition economies, price developments in Slovakia went through various periods and stages which were marked not only by diverse influences but also differed in terms of monetary policy performance.

In the first period, up to 2000, the Slovak Republic was a typical transforming economy that was characterized, on the one side, by a gradual liberalization of the balance of payment's current and financial accounts, which was later reflected in exchange rate volatility. On the other side, following the initial depreciation of the currency in the period after the establishment of the Slovak Republic, when inflation was in the double-digit range, it was necessary to determine an anchor for the development of the whole economy and, particularly, for preventing hyperinflation. As in most countries, the anchor consisted in fixing the exchange rate and using direct monetary policy instruments (credit limits, foreign exchange positions for monetary purposes, quantitative operations on the interbank market), as the economy was not used to react flexibly to changes in interest rates. These instruments were successful in that first period, and the inflation rate moved in line with acceptable levels. International financial crises and significant macroeconomic imbalances caused the fixed exchange rate regime to become unsustainable in 1998.

The second period started with the implementation of a floating regime and the establishment of a new government: It was a period of reforms and gradual transition to the standard instruments of monetary policy. Gradually, the system was abandoned and in 2000 the central bank started to set key interest rates. The development of the exchange rate was supposed to fulfill a stabilization task, as the reforms had a pro-growth impact on inflation development. These reforms consisted, inter alia, in eliminating cross subsidies and changing regulation of energy prices so as to reflect real costs. Henceforward, indirect taxes were harmonized with the EU and, within the tax reform, the focus was transferred from direct to indirect taxes. Wage policies of both general government and private companies were restrained, which led to a negative income effect. This also helped to stabilize inflation and improve a high current account deficit. At the same time, it contributed to the minimization of secondary effects on inflation development. Since 2005, Slovakia has created conditions for the introduction of inflation targeting. This strategy was part of a nation-wide plan to introduce the euro by 2009, which was approved in 2003.

Considering that the system of inflation targeting has a short history in the Slovak Republic, it is impossible to assess its influence on the development or stabilization of inflation. Public inflation expectations were obviously on a downward path, which may be connected both to inflation targeting and the revision of inflation targets from 3.5% to 2% over the last three years, but also to the favorable inflation development itself. Just because of the development of these factors, which are outside the influence of monetary policy, the inflation target was met only in 2005.

So far, we have not observed an impact on inflation expectations and wage requirements from the absence of inflation targets. Yet the demand side of inflation has not been sufficiently developed, and the influence of the Balassa-Samuelson effect has been relatively small, contributing no more than 1 percentage point to inflation development. At the same time, the power of trade unions is not great, which – together with sufficient competitiveness in the retail market – represents a dampening effect for possible inflation pressures.

3.2 Country-Specific Inflation Peculiarities and Possible Policy Measures

Tina Žumer (Advisor to the Governor, Banka Slovenije) focused on the factors driving inflation in Slovenia since 2007 and discussed possible policy measures.

Inflation picked up significantly more strongly in Slovenia than in the euro area. The country was hit by the external global price shock like the other EU and euro area countries, but this shock was propagated in a disproportionately stronger way due to favorable domestic cyclical conditions and it was amplified by strong domestic demand and other domestic factors. In particular, structural characteristics (e.g. the degree of competition and, in turn, pricing power) have likely played a role in this respect.

External factors: While the contribution of energy to the HICP developed in line with the euro area (as a result of regular price adjustments to world markets), the contribution of food clearly outpaced the euro area from the beginning of 2007. External factors were an important, but not the only factor explaining the recent inflation surge in Slovenia. This is also reflected in the HICP underlying inflation excluding food and energy, which increased to around 4% annually in

the second quarter of 2008, while remaining broadly stable (below 2%) in the euro area.

Domestic factors: All available indicators suggest that GDP growth was above its potential in 2007, which in turn indicates a potential for inflationary pressures owing to the lack of spare capacity in the economy. Furthermore, the unemployment rate reached a historical low and tightness in the labor markets was also confirmed by surveys. With some delay, wage growth started to pick up and ULC, which impact heavily on firms' output price, gradually accelerated to close to 5% year on year in the first quarter of 2008, after being broadly stable in 2005 and 2006. Mirroring strong domestic demand and rising inflation, the current account deficit widened significantly to 6% in the first quarter of 2008. Taking all these indicators together, it becomes apparent that domestic factors are important in explaining the current high inflation and should be thus considered when formulating policy recommendations.

Further to the cyclical factors, country-specific factors have also contributed to the recent rise in inflation, in particular Slovenia's EU entry in May 2004 and the euro introduction in January 2007. In the longer-term perspective, the structural properties of an economy (such as the degree of competition and flexibility in the markets) importantly shape inflation developments in a country. The Balassa-Samuelson effect typically attributes a part of higher inflation in catching-up economies to the differences in productivity growth in the tradable and nontradable sectors. However, available estimates suggest that the inflation differential between Slovenia and the euro area has been significantly larger than the available estimates of the Balassa-Samuelson effect could explain.

The role of economic policies: Upon euro area entry, policy options to counteract inflationary pressures changed, as there is no autonomous monetary policy anymore. As a result of an asymmetric rise in inflation in the environment of common monetary policy, conditions in Slovenia became over-expansionary, with real interest rates dipping into negative territory in 2007.

Fiscal policy in Slovenia was broadly neutral over the last two years, but an expansionary stimulus is expected in 2008. Given the inflationary risks identified, the broadly neutral stance over the last two years appears to have been not enough to efficiently counteract rising inflation. Hence, achieving a surplus in the general government balance and a more restrictive fiscal stance would be warranted.

Furthermore, wage policies and wage agreements are particularly important given external price shocks. Currently, Slovenia is facing a very unpleasant arithmetic, namely rising wage growth and declining productivity growth, pointing to strong inflationary pressures. Recent wage settlements in the public sector indicate high wage growth also for 2009 and 2010. Wage agreements were based on inflation forecasts, but they also foresee a compensation for past inflation, so that the agreements de facto imply nearly full indexation of collectively agreed wages on past inflation. This suggests that the risks for second-round effects have already materialized. In the light of currently unfavorable growth prospects, the adjustment burden lies mainly on the side of the labor market, or the economy will get stuck in a prolonged period of low growth.

Boris Vujčić (Deputy Governor, Hrvatska narodna banka) put the recent inflation developments in Croatia in a comparative perspective.

Mainly driven by supply side shocks, inflation started to accelerate in the middle of the third quarter of 2007. Higher prices for food raw materials and crude oil spilled over to food products and energy prices. However, Croatia's average inflation rate for the period from 1994 to 2007 was considerably lower at 3.2% than in Hungary, Poland, and Slovenia. Price pressures should ease in the near future, assuming restrictive fiscal and monetary policy, wage growth below productivity, and structural measures being pushed ahead by the government.

The weight of food in Croatia's CPI basket (29.1%) is much higher than in other countries of the region and in the euro area, where this share comes to just 14.4%. Price levels in Croatia are comparatively high, which should help dampen the future price convergence impact on inflation.

The Hrvatska narodna banka tightened monetary policy in 2007 and early 2008, inter alia by restraining credit growth, which should help to contain inflation pressures and expectations triggered by supply-side factors on the one hand, and still strong growth of domestic demand on the other. Some impact on inflationary pressures can also be achieved through exchange rate policy, as appreciation helps dampen import price increases. However, the exchange rate as a tool remains of limited use, as competitiveness considerations must be taken into account. A sustainable dampening of inflationary pressures can only be effective if supported by adequate fiscal and wage policies. Fiscal policy should impose stricter controls over expenditure growth, while wage increases should not exceed labor productivity growth.

Valentin Lazea (Chief Economist, Banca Naţională a României) highlighted peculiarities of inflation in Romania and policy measures to address them.

After falling steadily for more than seven years (from 2000 to mid-2007), inflation in Romania started to rise again from July 2007. What is worrisome is that in Romania's case, all inflation measures increased (headline, core1, core2, and adjusted core2). One peculiarity explaining high inflation is the very strong increase in the prices of food, which have the largest weight in the CPI basket (38.3%) of all CEE countries. But also the prices of food relative to the EU average are among the highest in the region. Overall, food prices in Romania represent 71% of the EU-27 average. Herein lies one of "little dirty secrets" of the country's agriculture, which was heavily subsidized even prior to the adoption of the common agricultural policy. As a result, Romanian consumers paid much higher prices than under normal competition. Moreover, at the moment of EU accession, food prices did not jump as a result of new EU tariffs, because they had already been at high levels.

The second important reason for a surge in Romanian inflation was the decoupling (which started in 2006, but materialized in 2007) between wage growth and productivity growth. As a matter of fact, nominal wage growth in Romania, at 21.5% in 2007, remains the highest in the region (except for the Baltic countries) and accelerated (!) each year from 2005 to 2008. It is likely that Romanian policymakers, employers, and employees have not realized that the EU accession party is over, that global sentiment has changed (much) for the worse, and that foreign investors harshly penalize countries that pursue reckless policies.

The third factor contributing to Romanian inflation is the continuing rapid growth of credit to the private sector. It continues to expand at around 50% per annum in real terms (!), whilst in the Baltic countries it started to decelerate a long time ago, and in the four Visegrad countries[11] growth never exceeded 35% per annum. Even in Bulgaria, which for a period had similar rates of credit growth, the downturn has been much sharper. What is even more worrisome is that foreign currency-denominated credit grows at the alarming real rate of 70% or more, with very few signs of deceleration. Also, credit granted to households (which, by definition, are less sophisticated and relatively unhedged borrowers) rises much faster than credit to firms.

Banca Naţională a României (BNR) hiked the monetary policy rate from 7% in September 2007 to 9.75% in May 2008, and future hikes should not be ruled out. Also, a firm management of money market liquidity was (and will continue to be) pursued. In this respect, it is worth noticing that the BNR's position vis-à-vis the banking sector is gradually changing from that of net debtor to net creditor. The minimum reserve requirements were maintained at the very high level of 20% (for domestic currency deposits) and 40% (for foreign exchange deposits). A prudential measure (which also has monetary effects, though) was to increase, in early 2008, provisioning for credit related to unhedged borrowers.

Among the reforms, continuing structural reforms (competition, labor, infrastructure) is paramount so as to boost productivity growth. Income policy should be restrained, in order to match productivity gains. Last, but not least, tighter-than-projected fiscal policy is needed in order to help narrow macroeconomic imbalances.

Finally, *Zornitza Vladova* (Economist, Bulgarian National Bank) submitted a contribution on recent inflation developments in Bulgaria.[12]

The sharp pickup in consumer price inflation since mid-2007 has been largely driven by the substantial contributions of the prices for food, catering services, energy and transport services. Food prices contributed 5.1 percentage points to annual inflation, catering services 1.8 percentage points, energy prices and transport services prices 1.1 and 0.6 percentage points, respectively.

Recent inflation developments in Bulgaria have been driven by a combination of country-specific, external and catching-up factors. A strong supply-side shock to food prices in the third quarter of 2007 was attributable to the fact that over the previous year, agricultural crop output contracted by about 35% for weather-related reasons and the coincident global agricultural commodity price increases, which had implications for high food inflation in the first half of 2008.

Poor harvests in Romania in 2007 disproportionately increased the demand for food produced in Bulgaria. In addition, an important driver of inflation in the first year of Bulgaria's EU membership was the increased foreign demand for food from EU countries (especially from Romania and Greece, but also from Germany). The introduction of the single customs tariff as of the beginning of

[11] *Czech Republic, Hungary, Poland, Slovakia.*

[12] *Unfortunately, the representatives of the Bulgarian National Bank could not attend the workshop; they submitted this comment instead.*

2007 drove up the import prices of some food products and agricultural raw materials.

The relatively large share of agricultural raw materials in food production costs (in contrast to euro area countries where labor and energy are the main components) has also contributed to increasing consumer food prices. A cartel agreement between vegetable oil producers, established by the Commission for Protection of the Competition, played a role in the substantial pickup in vegetable oil prices against the background of an increase in international prices of sunflower and a weak sunflower harvest in the country. This cartel agreement highlights the relevance of other possible imperfections in the structure of the domestic food supply chain.

Increases in excise duties on fuels over the last two years in line with surging international oil prices have contributed to a pickup in domestic energy prices. Since the end of 2007, energy and transport services prices have become an important contributor to annual HICP growth.

The acceleration in wage and ULC growth in 2007 occurred against the background of relatively stable developments over the previous years. The highest increase in nominal ULC growth was observed in the construction and services sectors, while the respective growth rate for the manufacturing sector was much less pronounced due to a substantial increase in labor productivity in that sector. Thus, inflationary pressures through the supply-side channel affected mainly service sector prices.

The most substantial adjustments of administered prices that were implemented in 2007 and the first half of 2008 cover electricity and water supply, sewage collection, road taxes, medical services and hospital services, as well as passenger transport by road. In effect from the beginning of 2008, excises were increased on tobacco, on electricity for business use and on coal and coke with a direct and indirect impact on HICP inflation.