SLOVENIA'S ROAD TO THE EURO AND THE PERSPECTIVES BEYOND

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Plan of the presentation

1. Medium-term macroeconomic developments
2. Monetary policy and the disinflation process
3. Euro-adoption strategy and the ERM II
4. Challenges ahead
MEDIUM – TERM MACROECONOMIC DEVELOPMENTS
Price level & GDP per capita

- Price level (in %, EU25=100%, 2005), left
- GDP (PPS per capita, in %, EU25=100%, 2005), right

Countries included:
- Belgium
- Germany
- Greece
- Spain
- France
- Ireland
- Italy
- Luxembourg
- Netherlands
- Austria
- Portugal
- Finland
- Denmark
- United States
- Sweden
- Estonia
- Cyprus
- Latvia
- Lithuania
- Hungary
- Malta
- Poland
- Slovenia
- Slovakia
- Czech Republic
Openness and trade relations with the EU-12

Country's export to EU 12 as a % of the total export (2005), left
Export & Import (% GDP, 2005), right
The sectoral structure of gross value added in % of GDP, 2005

- Other services: Slovenia 22.8%, Euro area (12 countries) 20.6%
- Trade, transport & communication services: Slovenia 22.2%, Euro area (12 countries) 21.2%
- Agriculture, hunting & fishing: Slovenia 2.5%, Euro area (12 countries) 2.0%
- Industry, including energy: Slovenia 28.2%, Euro area (12 countries) 20.4%
- Construction: Slovenia 5.9%, Euro area (12 countries) 6.1%
- Business activities & financial services: Slovenia 20.6%, Euro area (12 countries) 20.6%
Public finance

Graph showing government debt (2005, % GDP, left) and government balance (2005, % GDP, right) for various countries. The x-axis represents different countries, and the y-axis represents the percentage of GDP. The graph indicates the Euro area with a blue line and a specific country (not labeled) with an orange line. Key percentages highlighted are 60% GDP and -3% GDP.
Before ERM II: establishing a sustainable disinflation trend

- In general, standard macroeconomic effects on (dis)inflation:
  - **Demand factors**: Output gap, monetary policy
  - **Cost-push inflation**: labor costs, real exchange rate, fiscal shocks and administered prices, oil shocks

![Inflation chart](chart.png)

- Inflation (quarterly at yearly level, seasonally adjusted)
- Free prices inflation adjusted for fiscal effects
Demand-side inflation pressures

The aggregate demand cycle in 1999 due to a domestic demand shock clearly contributed to the break in the disinflation trend in 1999, and to the persistence in inflation afterwards.

Negative output-gap accelerated disinflation after 2000.

This indicator for the output gap is based on a Hodrick-Prescott filter trend for labor productivity and ad hoc adjustments for the end-of-sample bias, labor quality, and supply shocks.
According to some estimates, labor costs represented 70% of firms' costs. Decreasing the nominal growth in labor costs was therefore crucial for achieving disinflation.

Wage inertia (indexation) largely contributed to the inflation inertia between 2000 and 2002.
Fiscal policy inflation pressures

The table shows impulses on an increase or decrease in inflation with respect to an inflation-neutral policy. **These effects were substantial!** A cost of low fiscal deficits?

- To assess the total effect, substitution and transmission effects should be evaluated.

### Table: Direct fiscal effects on inflation and administered prices

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>taxes</strong>³¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAT</td>
<td>0.00</td>
<td>0.72</td>
<td>0.05</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>energy</td>
<td>1.96</td>
<td>0.84</td>
<td>0.23</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>others</td>
<td>0.11</td>
<td>0.21</td>
<td>0.28</td>
<td>0.34</td>
<td>0.34</td>
</tr>
<tr>
<td><strong>administered prices</strong>³²</td>
<td>2.07</td>
<td>-0.74</td>
<td>0.56</td>
<td>-0.07</td>
<td>1.06</td>
</tr>
<tr>
<td>oil</td>
<td>1.47</td>
<td>-0.96</td>
<td>0.23</td>
<td>-0.02</td>
<td>0.86</td>
</tr>
<tr>
<td>non-oil</td>
<td>0.60</td>
<td>0.22</td>
<td>0.33</td>
<td>-0.05</td>
<td>0.20</td>
</tr>
</tbody>
</table>

¹ Value of the tax revenue increase over the value of the tax base in the national accounts. Computations ARC.
² Excess over free prices, corrected for the weights in CPI. Computations ARC.
The external equilibrium and the real exchange rate

- Strong appreciations (upward movement in the real exchange rate) are followed by a deterioration in the current account. The depreciation in 1999 and 2000 re-equilibrated the current account.
- A slight deterioration in the latest years was mainly due to a deterioration in the terms of trade.
PART 2

MONETARY POLICY AND THE DISINFLATION PROCESS
Monetary policy design – the macroeconomic context

- After reaching around 5% in 1999, a combination of shocks pushed the inflation back to close to 10%:
  - VAT introduction
  - oil shock
  - Aggregate demand expansion (VAT)
  - wage indexation produced second round effects.

- Liberalization of the capital account.

- Fragile foreign position, deteriorating from 12% in 1992 to -3% in 1999.

- Perception of inefficient cost management in domestic sector, not submitted to foreign price competition and generating a high responsiveness of inflation to excess domestic demand.

- Previous exchange rate stabilization unsuccessful (Yugoslavian). Exchange rate is perceived as a weak instrument for price stabilization, and costly in terms of competitiveness.
The case for money...

- Theory (New Neoclassical Synthesis - New Keynesian):
  - Closed economy (Clarida, Gali, Gertler, 1999): use the (mainly) short-run interest rates (money…) to act on inflation by managing the aggregate demand (and credit, expectations…). Intensity of instrument adjustment depends on the nature and persistence of the shocks. Appropriate long-run context.
  - Open economy (CGG 2001, Aoki 2001): same optimal rule - do the same as in the closed economy and let the exchange rate (ER) adjust.

- Wide support in practice (Switzerland, Sweden, New Zealand…)

- No distortion in relative prices between tradable and non-tradable sector.
  - Only tradable sector reacts promptly to exchange rate dynamics, while both sectors react to monetary tightening.

- Hypothesis: output-gap is the major determinant of inflation variation.
... supported by a managed exchange rate

- **Perils of fixed exchange rate based stabilization or targeting:**
  - Vulnerability to speculative attack.
  - Pro-cyclical monetary policy when demand driven cycles (high variability in output, relative prices...).
  - It may be optimal to accommodate the terms of trade.
  - Empirically: **ERBS syndrome:**
    - (1) boom-bust business cycle followed by a recession that finally stabilizes prices (2) RER appreciation (wage and price inertia) (3) fundamental disequilibria current account (and government def.)
  - Fiscal dominance - fiscal theory of the price level?
  - Disruption of the interest rate transmission mechanism (financial intermediaries learning...)

- **Perils of free float:**
  - High volatility, excessive price level, suboptimally low output.
  - Pass-through effect on inflation.
  - Financial markets disruption or financing conditions instability.
Bank of Slovenia (BoS) managed the tolar/euro exchange rate dynamics with the objective to prevent (potentially large) movements in the exchange rate level.

To manage the exchange rate dynamics, and besides the regular quantitative intervention, the BoS could “intervene” on the exchange rate market by indicating a narrow band for the exchange rate to the banks in the “bank club”.

In exchange, BoS provided the SWAP instrument, through which all banks in the “bank club” could temporarily (7 days) buy or sell foreign exchange. BoS committed to set the SWAP rate close to the depreciation rate; therefore, banks entering the SWAP and opening their forex position did not bear (relevant) exchange rate risks.

** The “bank club” is subject to a free contract between a bank and the BoS. All but one bank are in the “bank club”.
The uncovered interest rate (UIP) constraint on the pricing of instruments

Closing the UIP relationship prevented the interest rate elastic capital flows from neutralizing the restrictiveness of the monetary policy. This was needed because BoS grants unlimited supply of tolers through 7 days SWAP rollover. Open UIP would generate arbitrage operations.

\[ i = i^* + \left( \text{swap rate} + \zeta \right) \Delta e + \text{swap premium} \]

- \( i \): domestic interest rates - 60 days CB bill
- \( i^* \): foreign interest rates - ECB refinancing rate
- \( \Delta e \): “indicated” exchange rate dynamics (positive value for nominal depreciation)
- \( \text{swap rate} \): 7 days swap rate
- \( \text{swap premium} \): cost of financing (liquidity) for banks (≈ 0.75%)
- \( \zeta \): residual - risk premium
BoS maintained a moderately restrictive stance to support the disinflation trend. Interest rates increased in case of excess demand produces inflationary pressures.
The disinflation performance and its qualitative evaluation

- Optimal disinflation intensity:
  - Allowed for price, wage and expectation adjustment and was supposed to avoid disinflation costs.
  - “Opportunistic Approach”: gradual approach towards target. Did not restrict demand if far from equilibrium (primarily due to cost-push inflation factors).
  - In the absence of shocks: 2-3 percentage points per year. Asymmetric supply shocks slowed the disinflation path in the period between 1999 and 2002.

- Qualitative evaluation that indicates the sustainability of low inflation:
  - High stability of macroeconomic conditions.
  - No relevant macroeconomic disequilibrium (current account, government deficit...)
  - No important interest rate elastic speculative capital flows.
Part 3

EURO – ADOPTION STRATEGY AND THE ERM II EXPERIENCE
The timing of the entry in ERM II – Why as early as possible?

- Particularities of the macroeconomic circumstances:
  - Expected decrease in inflation consistent with the related Maastricht criteria. In addition, one-off effects of EU integration (trade tariffs, etc.) supported the disinflationary trend.
  - Small variability of the exchange rate and inflation (around the disinflation trend) increased the probability that the central parity remains unchanged during ERM II.
  - Equilibrated current account enabled the absorption of asymmetric (demand) shock.
  - Large negative output gap may have contained inflationary pressures.
  - Moderate real wage growth.

- Increased credibility of the policy mix, in particular more rigorous fiscal policy. A postponement of ERM II may have decreased the anti-inflationary commitment of macroeconomic policies.

- Anchorage of inflationary expectations since a clear nominal anchor had been decided.
The ERM II entry required a new macroeconomic framework

Joint program between BoS and the Government of Slovenia from Nov. 2003:

- **Monetary policy**: exchange rate management in line with the ERM II criterion. To a large extent, it implied no more independent monetary policy.

- **Fiscal measures became paramount**:
  - Low fiscal deficits, counter-cyclical spending, buffer stock relative to the Stability and Growth Pact.
  - Reduced rigidities and formula-driven social transfers indexation.
  - Restraints on excise duties and tariff increases to avoid cost-push shocks on inflation.
  - Coordination with BoS in selling state-owned capital shares in firms to nonresidents.

- **Other policies**:
  - **Wage flexibility** was needed to absorb asymmetric shocks (progressive deindexation…).
  - **Synchronization of activity** with euro area implied consistency with the ECB stance.
  - **Financial sector supervision**.
  - **Appropriate central parity**: trade-off between competitiveness and inflation pressures.
Relatively favorable macroeconomic environment: negative although closing output-gap and moderate growth in labor costs, moderately restrictive monetary policy.

One-off effects related to EU entry (trade tariffs on food, used cars) and increased global competition (clothing...)

Strong effect of oil shocks: oil prices increased headline inflation by 1.3 p.p. in 2005
Monetary policy experience in ERM II

- BoS maintained its interest rates at high levels (4%), but still consistent with exchange rate stability. Since the beginning of 2006, the interest rates gradually converge.

- No major tensions on foreign exchange markets and pressures on exchange rate

- Monetary policy instruments proved effective in pursuing the monetary policy goals, so that no changes others than those related to the euro adoption have been introduced.
Nominal exchange rate stability

- Exchange rate stability was facilitated by the credible central parity, consistent with the external equilibrium.
- On the operational side, short-term (7 days) forex SWAPs helped in the foreign liquidity management and played the role of an exchange rate smoother.
"Interest – elastic" flows and the room for monetary policy

2 types of indicators to assess interest-elastic flows:

(1) = net international loans + net deposits of nonresidents at banks + net portfolio investments

(2) = (1) - difference between growth of credits and growth of the broad monetary aggregate.

(Takes into account the need to accommodate the incremental money demand - in case of a structural deficit, it is created from foreign currency inflows.)
Bank of Slovenia maintained its interest rates above the ECB's:

- Monetary policy shaped to domestic conditions, which did not require an expansive stance.
- With the expected return to neutral in the ECB rates this enabled smoother interest rate convergence.
The interest rates differential

- **Current policy:** interest rates tailored to domestic cyclical conditions, but constrained by the needs for the exchange rate stability.

- Why was this moderate differential in interest rates sustainable?
  - Still some exchange rate risk, especially in short-term instruments.
  - Alternative investments - markets (countries with higher interest rates and stable exchange rate).
  - Transaction costs (bid-ask spreads) low liquidity of available instruments.
  - The SWAP premium.

- As the euro adoption approached, the possibility to maintain an interest rate differential has been reducing.
CHALLENGES AHEAD
Forecasts show a favorable picture

<table>
<thead>
<tr>
<th>Activity, employment, wages</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP</td>
<td>3.5</td>
<td>2.7</td>
<td>4.4</td>
<td>4.0</td>
<td>5.2</td>
<td>4.6</td>
</tr>
<tr>
<td>Employment</td>
<td>1.5</td>
<td>-0.2</td>
<td>0.4</td>
<td>0.7</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Net wages</td>
<td>2.1</td>
<td>1.8</td>
<td>0.8</td>
<td>3.6</td>
<td>2.6</td>
<td>4.0</td>
</tr>
<tr>
<td>Gross wages</td>
<td>2.1</td>
<td>1.9</td>
<td>1.0</td>
<td>2.2</td>
<td>2.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Productivity</td>
<td>2.0</td>
<td>2.9</td>
<td>4.0</td>
<td>3.2</td>
<td>4.0</td>
<td>3.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domestic demand</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic demand</td>
<td>2.4</td>
<td>4.7</td>
<td>4.9</td>
<td>2.0</td>
<td>5.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Private consumption</td>
<td>1.3</td>
<td>3.4</td>
<td>2.6</td>
<td>3.4</td>
<td>3.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Government spending</td>
<td>3.2</td>
<td>1.6</td>
<td>3.4</td>
<td>2.2</td>
<td>3.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Gross investment</td>
<td>4.0</td>
<td>10.1</td>
<td>11.4</td>
<td>-1.1</td>
<td>11.4</td>
<td>6.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Balance of payments</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports of goods and services</td>
<td>6.7</td>
<td>3.1</td>
<td>12.5</td>
<td>10.5</td>
<td>10.0</td>
<td>8.4</td>
</tr>
<tr>
<td>Imports of goods and services</td>
<td>4.8</td>
<td>6.7</td>
<td>13.4</td>
<td>7.0</td>
<td>10.4</td>
<td>8.1</td>
</tr>
<tr>
<td>Current account (EUR millions)</td>
<td>247</td>
<td>-196</td>
<td>-720</td>
<td>-547</td>
<td>-773</td>
<td>-600</td>
</tr>
<tr>
<td>as % of GDP</td>
<td>1.1</td>
<td>-0.8</td>
<td>-2.8</td>
<td>-2.0</td>
<td>-2.6</td>
<td>-2.0</td>
</tr>
<tr>
<td>Terms of trade*</td>
<td>0.5</td>
<td>1.3</td>
<td>-1.0</td>
<td>-2.7</td>
<td>0.1</td>
<td>0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prices</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer prices (HICP)</td>
<td>7.5</td>
<td>5.7</td>
<td>3.7</td>
<td>2.5</td>
<td>2.5</td>
<td>2.7</td>
</tr>
<tr>
<td>Free prices</td>
<td>7.6</td>
<td>5.9</td>
<td>3.0</td>
<td>1.1</td>
<td>1.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Administered prices</td>
<td>6.7</td>
<td>4.6</td>
<td>6.9</td>
<td>9.1</td>
<td>6.2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

No major external disequilibrium, or domestic overheating.

Inflation should remain between 2.5% and 3%.

* On the basis of national accounts deflators.
** Quantitative imports from basket of foreign partners.
# Macroeconomic scenarios and risk assessment

<table>
<thead>
<tr>
<th>Simulation (baseline scenario)</th>
<th>GDP</th>
<th>Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projections</td>
<td>4.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Response of projections to shocks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Foreign environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Oil price</td>
<td>4.5</td>
<td>3.2</td>
</tr>
<tr>
<td>2. Commodity prices</td>
<td>4.5</td>
<td>2.8</td>
</tr>
<tr>
<td>3. Foreign demand</td>
<td>4.5</td>
<td>2.7</td>
</tr>
<tr>
<td>b) Domestic environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Wage growth</td>
<td>4.7</td>
<td>2.8</td>
</tr>
<tr>
<td>5. Household spending</td>
<td>4.8</td>
<td>2.8</td>
</tr>
<tr>
<td>6. Government spending</td>
<td>4.7</td>
<td>2.7</td>
</tr>
<tr>
<td>7. Growth in administered prices</td>
<td>4.5</td>
<td>2.8</td>
</tr>
</tbody>
</table>

### Shock (change)

<table>
<thead>
<tr>
<th>a) Foreign environment</th>
<th>Qualitative probability estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil price</td>
<td>higher than the forecast price level by 5 USD per barrel</td>
</tr>
<tr>
<td>Commodity prices</td>
<td>higher than the forecast price level by 10%</td>
</tr>
<tr>
<td>Foreign demand</td>
<td>lower by 1 percentage point than forecast growth</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b) Domestic environment</th>
<th>Qualitative probability estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage growth</td>
<td>higher by 1 percentage point than forecast growth in wages</td>
</tr>
<tr>
<td>Household spending</td>
<td>higher by 1 percentage point than forecast growth in spending</td>
</tr>
<tr>
<td>Government spending</td>
<td>higher by 1 percentage point than forecast growth in spending</td>
</tr>
<tr>
<td>Growth in administered prices</td>
<td>higher by 2 percentage points than forecast growth in free prices</td>
</tr>
</tbody>
</table>
Additional risks and challenges ahead

How successful the adoption of the euro will be in Slovenia depends on the ability of the macroeconomic policy to cope with macroeconomic risks and challenges ahead:

- Fiscal policy adjustment to the common currency environment.
- Labor cost increases must correspond to growth in productivity.
- The "identification" of factors generating medium-term growth.

Inappropriate or insufficiently ambitious policy conduct could result in an inflationary cycle, excess real appreciation, loss of competitiveness and eventually a stagnating economic activity.
Fiscal policy adjustment to the euro environment

- Readiness for counter-cyclical spending in case the aggregate demand exceeds the potential GDP. Building up reserves in the fiscal balance to enable a fiscal stimulus in case of an (asymmetric) demand crisis – given the Maastricht constraints, this requires a more ambitious adjustment towards a fiscal surplus in "good times".

- The EU funds must be oriented towards enhancing the GDP potential and should not stimulate government consumption (for example, if EU funded investment would free budget resources).

- Ensure the short term macroeconomic stability (expenditure rather than revenue adjustment to avoid cost-push price adjustments and price instability) and long-term sustainability of public finances (high long-term risk due to unfavorable demographics).
A fiscal adjustment based on expenditure restraint is needed

• Some progress has been done:
  – Public wages have been kept under control in the last two years.
  – Partly successful measures to keep health expenditure under control.

• More progress should be done in the future:
  – More restrictive employment policy and continued wage moderation.
  – Examination of the existing social protection system.

The public finance situation remains solid:

• Public debt ratio is low: 28.0% of GDP in 2005,
• Interest payments are relatively low: 1.66 % of GDP in 2005,
• State guarantees amount to 9.9% of GDP in 2005.
Fiscal policy: performance in holding to the commitments

- Realistic projections
- Deficit objectives lack ambition.
- Most of the fiscal deficit is structural

** Due to methodological changes, the deficit was revised downwards in recent years, in the ESA95 definition. For the sake of consistency, white bars show the realization at the point the deficit objective was announced.
Labor cost increases must correspond to growth in productivity

- This is evident but crucial in the current context; in case of an unfavorable supply shock that exerts a cost-push effect on prices (currently the case of the oil shock).
  - Higher (factor) costs decrease the labor demand at equal real labor costs.
  - Labor costs therefore should not remain unchanged in real terms (try to catch up with the price increases) – it would increase unemployment, slow down growth and generate second-round effects on inflation.

- This is the very reason for the moves away of wage indexation towards a forward-looking wage setting in Slovenia!
The "identification" of factors generating medium-term growth

- Inflation dynamics is strongly affected by the "output gap", the excess aggregate demand over the potential aggregate supply. Therefore, a good estimate of the potential supply is crucial in orienting macroeconomic policies of aggregate supply.

- But how to estimate – identify – the aggregate supply, in particular in the context of the events that are currently taking place:
  - The EU entry: possible productivity growth acceleration due to easier technology adoption and work practices adjustment, improved potential of taking advantage of economies of scale, intensification of competition.
  - Structural reforms...

- Macroeconomic policy mistakes due to this "identification problem" can be costly:
  - Not counteract excess demand pressures, risk of inflationary cycle
  - Counteract supply side induced growth in the potential GDP, risk of policy-induced growth slowdown.
A comparison of developments in inflation around the year of euro adoption

- Germany
- Greece
- Spain
- Italy
- Portugal
- Slovenia*

The chart shows the inflation developments for various countries around the year of euro adoption, with Germany, Greece, Spain, Italy, Portugal, and Slovenia indicated.
A comparison of developments in the fiscal balance around the year of euro adoption
A comparison of developments in the current account around the year of euro adoption