Recent developments on competitiveness

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Workshop THE PORTUGUESE ECONOMY: DEALING WITH THE CHALLENGES OF COMPETITIVENESS AND FISCAL SUSTAINABILITY IN THE EURO AREA

Lisbon, 30 November 2009

2001: my newspaper article

- 1990s: Change in regime
- End of financial repression (credit ceilings, capital controls)
- Lower inflation rates
- Declining currency risk
- Prospects of faster convergence

Implications:

- Demand expansion
- Large capital inflows (also to accommodate the fall in money velocity)
- Real Exchange Rate (RER) appreciation

Future (as of 2001):

- Aggregate demand will fall back

- In the presence of price or wage stickiness, incentives have to be adjusted so as to favour the reallocation of resources from non-tradables to tradables and composition of the demand in the opposite direction.

- Critical choice: wages vs unemployment (for each productivity level)

The interesting thing is that in 2009 we are still discussing the same dilemma.

This is only possible because Portugal is in the EMU.

Outline:

- 1. What happened?
- 2. The relative price effect
- 3. Unit Labour Costs
- 4. Terms of trade effects
- 5. Discussion

	1996-2000	2001-2005	2006-2008	2009*
Private Consumption	4.2	1.4	1.7	-0.9
Government Consumption	3.9	2.4	-0.3	2.1
Gross Capital Formation	7.9	-2.2	0.9	-13.1
Households	6.1	-3.1	-1.3	-
Firms	10.0	-1.7	3.6	-
Government	4.0	-3.0	-8.8	-
Domestic Demand	5.0	0.7	1.2	-3.3
Exports	6.3	2.6	5.1	-13.1
Imports	8.6	1.9	4.3	-11.7
GDP	4.1	0.9	1.1	-2.7

GDP (Expenditure Approach) - Average growth rates

Source: INE 1995-2008. B. Portugal 2009 (forecast).

Output Gap (Portugal)



- In 1995-2000 there was and increase in domestic demand (5% per year)
 - Private investment
 - Government expenditures
- This allowed the economy to recover from the previous slump.
- Lower output gap than in the previous cycle (EMU effect)

1. What happened?

	1995	2000	2005	2008	95-00	00-05	00-08
Households							
Saving	9.7	7.3	6.6	4.6	(-2.4)	-0.7	-2.0
Investment	6.9	7.8	6.0	5.6	0.8	-1.7	-0.5
Saving minus Investment	2.7	-0.5	0.6	-1.0	-3.2	1.0	-1.5
Corporations					\frown		
Saving	11.6	9.1	9.4	6.6	-2.5	0.2	-2.8
Investment	12.1	16.2	13.6	14.5	4.1	-2.6	0.9
Saving minus Investment	-0.5	-7.0	-4.2	-7.9	-6.5	2.8	-3.7
General government					\bigcirc		
Saving	-1.5	0.6	-3.2	-0.9	(2.1)	-3.8	2.3
Investment	3.7	3.8	2.9	2.1	0.0	-0.8	-0.8
Saving minus Investment	-5.2	-3.2	-6.1	-3.1	2.0	-3.0	3.1
External							
Saving	3.0	10.7	9.8	11.9	7.7	-0.9	2.1
Memo:							
Private saving	21.3	16.4	16.0	11.2	-4.8	-0.5	-4.7
Government saving	-1.5	0.6	-3.2	-0.9	2.1	-3.8	2.3
Investment	22.7	27.7	22.6	22.2	(4.9)	-5.1	-0.4
Capital transfers	2.6	1.7	1.5	1.7	-1.0	-0.1	0.2
Netborrowing	0.3	9.0	8.3	10.2	8.7	-0.8	1.9

Current savings and investment by institutional sector (% of GDP)

It looks like this episode of external imbalance was driven by private choices, instead as by negative government savings.

However, the fiscal impulse in the period was expansionary, so the government also had a role.

1995-2000:

- Households savings declined
- Corporate savings declined (increase in taxation in 95-00, interest bill in 05-08)
- Government savings improved (Maastricht discipline, though the improvement was revenue based, with a pro-cyclical fiscal stance).
- Private investment increased



Savings by Institutional Sector and GFCF (% of GDP)

Other episodes of external imbalance had occurred, but this one has been much longer.

Participation in the EMU allows for a smoother return to external balance, smoothing the business cycle

Note that:

1. The investment boom along 1995-2000 was not impressive (including households investment);

2. The fall in households savings had started much earlier (middle 1980s)



Table 2: Domestic deman	d as a percentage of GDP
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	1953-1973	1974-1995	1996-2000	2001-2005	2006-2008
Private consumption	72.0	67.6	64.1	63.7	65.6
Public Consumption	10.1	14.5	18.5	20.4	20.5
Investment	24.9	30.5	26.4	24.2	22.2
Domestic Demand	107.1	112.6	109.0	108.3	108.3

Corporate sector

% of GDP

	1995	2000	2005	2008	95-00	00-05	05-08
Gross operating surplus	19.5	19.4	19.2	20.7	0.0	-0.2	1.5
Net property income Net current transfers received minus taxes	-4.6	-5.6	-6.0	-9.4	-1.0	-0.4	-3.4
on income and wealth Adjustment for the change in net equity of	-1.9	-4.0	-3.3	-4.6	-2.1	0.8	-1.3
households on pension funds: corporations	1.1	0.7	0.6	0.1	-0.4	-0.1	-0.4
Gross savings	11.9	9.1	9.4	6.7	-2.7	0.2	-2.7

- Gross Operating Surplus remained stable in 1995-2000

- In the 1995-2000 period, the fall in corporate savings is mostly accounted by a sharp increase in taxation

- Along 1995-2005, the fall in interest payments is more than offset by an increase in distributed earnings, so the net property income declined slightly.

- After 2006, however, the interest bill increased sharply and so did the net property income. In result, there is a fall in corporate savings



Current and Capital Account (% of GDP)



-Declining transfers

-Fall in net exports (not as dramatic as

- With the rising debt, an increasing deficit in the income account shows up

Current account as a percentage of GDP (period averages)

	1953-1973	1974-1995	1996-2000	2001-2005	2006-2008
Net exports of goods and services	-5.0	-9.1	-9.2	-8.0	-7.8
Net primary income from the RoW	0.2	-2.3	-1.3	-2.3	-4.3
Net current transfers + capital account	4.3	8.2	5.3	3.5	2.8
Net lending (+) or net borrowing (-):	-0.5	-3.1	-5.2	-6.8	-9.3

The Oil Shock is part of the story

•Net exports have been largely affected by terms of trade effects

•Between 2003 and 2008, net imports of energy increased by 2.3% of GDP

•In 2008, more than half of the deficit in net exports (8.9% of GDP) is accounted by energy (4.9%).



Relative price of oil (Brent in euros divided by the GDP deflator)



Outline:

- 1. What happened?
- 2. Relative price effects

• In a small open economy, a demand expansion leads to an increase in the relative price of non-tradables ("relative prices effect")

- •The National Accounts do not distinguish tradable and non-tradable goods.
- But we expect some categories (manufactures) to have a higher proportion of tradable goods than others (services, building and construction).
- This is not to say that Portugal doesn't export services
- Simply, by comparing the different paths, one may learn on what happened in T and N

Price deflators of GVA by branch of Activity



On a yearly basis, inflation rates were :

- Manufactures: 1.4%
- Building and Construction: 5.0%
- Services: 3.4%

This pattern didn't change during the slump phase (non-sterilized capital inflows have nominal implications)

The Relative Price Effect

The changes in relative prices impacted on production



the housing

market

Employment by branch of activity

• Workers moved away from manufactures and agriculture to services and building construction

• By the turn of the century, employment started falling in **Building and Construction**



Fonte: Confidencial Imobiliário; Ministerio de Vivienda (Espanha)

The Relative Price Effect

The change in aggregate productivity reflects compositional effects

	Employment					GVA per worker			Shif-Share analysis			
Branch of Activity	1995	2006	% change	Share 1995	Share 2006	1995	2006	% change	Within sector effect	Between sector effect	Cross sector effect	Total
Agriculture, Silvicultre and Fishing	654	606	-7.4	14.4	11.8	6.6	6.6	-0.7	0.0	-0.9	0.0	-0.9
Electricity, Gas and Water	45	39	-14.6	1.0	0.8	42.6	84.4	98.1	2.1	-0.5	-0.5	1.1
Manufacturing	1 0 0 9	909	-10.0	22.3	17.7	15.1	20.5	35.7	6.2	-3.5	(-1.3)	1.4
Construction	419	524	25.0	9.3	10.2	15.2	13.0	-14.5	-1.0	0.8	-0.1	-0.4
All Services	2 403	3 0 4 9	26.9	53.0	59.5	25.3	26.6	5.4	3.7	8.3	0.5	12.5
Total	4 531	5 1 26	13.1	100.0	100.0	19.6	22.2	13.6	10.9	4.1	-1.4	13.6

Shift share analysis of labour productivity: 1995-2006

GVA per worker increased at 2.8% per annum (35.7% in the period) in manufactures, which compares to 0.5% in services and -1.4% in building construction.

- The reallocation of workers from manufactures to services impacted positively on average productivity, because average productivity in services is higher than in manufactures.

- The cross effect is negative, reflecting the move away from industries with high productivity growth to industries with low productivity growth

The Relative Price Effect





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Competitiveness

- Blanchard (2007): along 1995-2000, unemployment declined below its natural rate, implying that "nominal wage growth was substantially faster than labour productivity, leading to growth in ULC and decreasing competitiveness relative to those in the euro area" (p.4).
- Blanchard assumes that wages respond to the expected changes in average productivity, expected inflation and deviations from the NAIRU (his parameter beta captures real rigidities).
- The author assumes that firms in the N-sector are able to "pass through" labour costs to prices, so that they are always on the respective labour demand curve: $P_N = W/a_N$
- In the T sector, however, producers are price constrained, so wage changes impact on margins. This presumes that firms face costs in adjusting the labour force.
- Blanchard defines competitiveness (Z) as the difference between the output price and the ULC in the tradable goods sector or which is the same if the law of one price holds the inverse of ULC relative to the reference foreign country



What happened to nominal wages?

- As expected, nominal wages increased during the up-phase;
- Nominal wages increased during the slump phase, too.

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Nominal compensation per employee: total economy (euros, 1995=100)
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1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008

Compositional effects



• Since labour is non-homogeneous, there are also compositional effects here: the reallocation away from manufactures to services lead to higher wages on average.

• Wages in manufactures and in services have evolved more or less proportionally (+53% and +58% respectively).

• Wages in building and construction look like having increase faster (73%). But there are reasons not to trust too much this figure.

Unit Labour Costs

Real wages and productivity



• For the economy as a whole, it looks like real wages indeed increased faster than productivity during the boom phase;

• However, during the slump phase, real wages reverted to the productivity trend.

In a longer sample, we observe that the labour share in GVA has not been high for historical levels;

(though it will increase in 2009-2010).

In our main partners, however, the labour share has been in a declining trend (move towards less labour intensive technologies, in a context of globalization?)

Note that this data refers to the total economy, including the general government.

Unit Labour Costs

What about competitiveness?

- Blanchard (2007, 2008) used ULC data on the <u>business sector</u> to infer about competitiveness.
- The European Commission (European Economy, Nº 10/2009) uses ULC for the total economy to argue that: "Cost competitiveness developments also reflect inadequate wage and price behaviour, including also the weak response of wages to productivity and labour market developments". (...)
 "...combined productivity and wage developments are expected to lead to higher ULC growth than in most of the country's main trading partners, thereby hampering the potential of the external sector ...".
- Constâncio (2008) points out that there are huge differences between the different RER: "ULC for the overall economy show a sizeable appreciation, whereas ULC in manufacturing show a much lower one. (...) One explanation, which would be a good one is that productivity in the export sector increased much more than in the economy as a whole, and made it possible that over the years firms have hardly increased export prices over those of our partners." (p. 64).

Distinguishing the RER measures

Changes in relative ULC capture two effects: Loss of competitiveness in T and changes in the relative price of N.

$$\frac{W/a}{W^{*}/a^{*}} = \left(\frac{W/a_{T}}{W^{*}/a_{T}^{*}}\right)^{\alpha} \left(\frac{W/a_{N}}{W^{*}/a_{N}^{*}}\right)^{1-\alpha} = Z^{-\alpha} \left(\frac{P_{N}}{P_{N}^{*}}\right)^{1-\alpha}$$

Changes in relative P capture changes in the relative price of N.



This leads us to a distinction between "competitiveness" (a la Blanchard) and RER appreciation (broader concept, which includes relative price effects, such as in the Balassa –Samuelson case).

- Differences between ULC-based and Pbased RER are accounted for by changes in producer margins, Z (relative to foreign)
- For instance, in 1965-1976, producers margins shrank, so the ULC-based RER increased relative to the P-based RER: Z<1).
- Ain the late 1980s, producer margins are likely to have been too high
- In the last years, the two series basically evolved in parallel: it seems that most of the RER appreciation has been accounted for by the relative price effect.

Unit Labour Costs

Nominal ULC vs P per branch of economic activity (1995=100).



What happen in the different branches?

- Output prices have evolved close to ULC in manufactures and services.
- In building and construction, ULC have increased faster than P. Probably this reflects low quality in the data: increasingly reported wages?
- It looks like in services and in manufactures, producers have been close to the corresponding labour demands.
- This suggests Z=1 (rising wages translating into a situation of classical unemployment).

(Calibrating a Cob-Douglas with the average labour shares along 1995-2005, we obtain a guess of marginal products that basically follows the actual wage rates).

Unit Labour Costs

Competitiveness in manufactures

$$\left(\frac{W^*/a_T^*}{W/a_T}\right) \neq \left(\frac{P_T}{W/a_T}\right)$$

(The Law of One Price didn't exactly hold)

Nominal and real unit labour costs: manufactures 2006 (1995=100)

	Y	L	Y/L	W	ULC	Р	RULC	W/P
Belgium	121	88	138	104	75	99	76	105
Czech Republic	196	100	195	284	146	149	98	191
Denmark	109	81	134	157	116	120	97	131
Germany	126	84	(150)	128	85	99	(86)	130
Estonia	254		\smile		\bigcirc		\smile	
Ireland		100		198				
Greece	130	101	129	153	118	134	88	114
Spain	138	121	(115)	133	(116)	127	(92)	105
France	127	88	145	132	91	89	(102)	148
Italy	106	98	107	151	141	136	104	111
Cyprus	98	84	117	152	130	139	94	109
Latvia	194	84	230	326	141	124	114	262
Lithuania	246	90	274	528	193	201	96	263
Luxembourg	130	107	122	127	104	105	100	121
Hungary	210	101	208	196	94	132	71	148
Netherlands	127	89	143	140	98	104	94	134
Austria	142	94	151	129	85	101	84	127
Poland	223	96	231	198	86	102	84	194
Portugal	123	90	(137)	158	(116)	113	(103)	140
Romania	154	77	200	415	208	186	112	224
Slovenia	177	83	213	176	82	104	79	168
Slovakia	251	90	278	293	105	107	98	273
Finland	205	105	195	142	73	76	96	187
Sweden	191	91	211	158	75	74	101	213
United Kingdom	106					125		
Norway	124	95	131	179	136	148	92	121
Switzerland	123	92	133			100		
United States	144	82	176	167	95	97	98	172
Japan	120	80	149	91	61	66	92	138
Mexico	155	135	115	197	171	174	98	113
Korea	215	86	249	203	82	87	94	234

- Employment declined in most countries

- In terms of productivity change, Portugal ranks 18th out of 28 countries

- Relative ULC have deteriorated against the main trading partners (Germany, France, US) and were constant against Spain.

- However, the increase in the price deflator allowed the producer margin in Portugal to stay more or less constant along the period.

- In Germany and Spain producer margins have increased

- The deviation from the Law of one price reflects loss of competitiveness or structural change?



Labour share on value added – Manufactures



Unit Labour Costs

The deviation from the Law of One price in manufactures has two interpretations:

- a) Firms tried to "pass through" to consumers the increase in labour costs, so as to stay in shape with their labour demand curve. In that case, there would be of competitiveness. This presumes imperfect substitutability between domestic and foreign goods. Since substitutability is likely to be high anyway, production was expected to decline or exhibit little growth, which did not happen.
- b) There has been creative destruction, with the emergence of new exporting industries and the sizing down of traditional industries (there is extensive evidence pointing to this case).

Income content (PRODY) and revealed comparative advantage





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The reimbursement problem

No economic agent can sustain an increase in its debt to income permanently.

So sooner or later, this will translate into a primary surplus in the current account consistent with the stabilization of the external debt.

Participation in the EMU will help:

- There will be no capital flow reversal (more time to adjust).
- There will be no sudden depreciation of the currency leading to higher costs in servicing the debt.
- Absence of currency risk translates into lower interest rates than otherwise, so a lower primary surplus will be required to stabilize the debt
- Nominal stability, fiscal discipline and capital mobility are expected to induce faster TFP growth, lowering the size of the required primary surplus.
- (...)

Still:

To the extent that the return to external balance implies a change in relative prices, it may be interesting to measure the size of the required adjustment.

The Fundamental Equilibrium RER

We want to assess the level of the RER that is consistent with the external and internal balance.

The method follows Williamson (1983).

Since we believe that the trend GDP growth in Portugal will evolve close to the cost of borrowing, we abstract from the size of the required primary surplus.

However, we account for terms of trade effects: Portugal is highly dependent on energy imports.

In the short run, the demand for energy is inelastic, so changes in the price of oil act like transfers from abroad (Dutch Disease).

- When the price of oil increases, the non-energy component of the current account balance needs to be positive to achieve the external balance.

- This, in turn, requires a decline in the relative price of non-tradables (RER depreciation).

The recent path of the Portuguese economy has been in the opposite direction.

Fundamental Balance (% of GDP): (primary current account + net FDI)



Regressors: output gap in PT, output Gap in the EU 15, the relative price of oil, the RER (P, ULC).

Method: Single equation ADL, that simplified to partial adjustment

Terms os trade effects

RER actual and FEER



(Note that the two FEER estimated do not differ much: this is expected, because the FEER should obey to Z=1 and PN/PN*=1).

Phases:

1973-1979: oil price shocks required a RER depreciation that came too late. Wages even moved in the opposite direction (Z<1). 1st stand-by agreement.

1979-1985: RER remained low, though with an over-appreciation in 1981-82 (2nd stand-by agreement)

1986-1990: improvement in the terms of trade required an appreciation. The actual RER appreciated too slowly, giving rise to large surpluses in the fundamental balance. ULC appreciated even slower (Z>1).

1990-1997: Rising RER in a context of declining oil prices: the GAP remained close to the equilibrium.

1998-2008: Rising RER in a context of rising oil prices: the GAP increased sharply.

Terms os trade effects



Output Gap

The Krugman-Macedo diagram:

1995-1998: Demand driven external imbalance

1999-2000: Terms of trade deterioration

2000-2003: Demand fall pushed towards external balance, though the RER gap was increasing

2004-2008: New rise in oil prices pushed the RER to more than 30%

Terms os trade effects

Outline:

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- 5. Discussion: adjusting in the euro area

In sum:

- 1. The demand expansion caused a RER appreciation
- 2. Workers moved away from low wage manufactures to high wage services
- 3. The Oil price shock called for a RER depreciation instead
- 4. Difference relative to 1976: real wages evolves according to productivity

What next?

- The transition to the reimbursement phase is likely come finally, due to the tightening of financial conditions.
- Also agents became more risk averse.
- In 2009 there was a huge fall in private investment and households savings are already increasing. The domestic demand fell sharply.
- Synchrony during the crisis is likely to have caused an over-reaction: in the near future, a smoother adjustment is more likely to prevail.
- Still, tighter financial conditions and rising commodity prices will call for a higher production of tradables.

So incentives have to be in place for such a reallocation to occur.

- Otherwise, the aggregate demand adjustment will result in high unemployment.
- Technological change will definitely help: the faster the technological improvement in tradable goods sector, the lower will be the required shrink of the non-tradable goods sector.



How painful?

It depends on whether unemployed and businessman closing down non-tradable activities will find it attractive to engage in T production.

Blanchard (2007): real and nominal wage rigidities will prevent relative prices from adjusting fast, dooming the economy to a slow and painful process of competitive disinflation.

This is more likely to affect wages than prices of non-tradables

Note that new jobs do not necessary imply lower wages: in the ongoing process of structural transformation, new investments are expected to bring productivity levels higher than the average. Still, some unemployed may have to accept lower wages.

In the past, we had episodes of high real wage flexibility, but in the context of a different regime.

The trillion dollar question is whether wage bargainers today are incorporating all the implications of the new macroeconomic regime.

Policy has a critical role here: Incentives have to be properly designed.

In particular, it is the role of government to find an appropriate balance between protecting unemployed and the need to keep the incentives right.

Focus: remove all the (natural or policy induced) barriers put on the path of unemployed in their effort to search for a new job.

Discussion

A different question is whether business man in services will find it interesting to move:

- (+) Domestic demand will fall
- (-) There are learning costs
- (-) Increasing competition in the context of globalization is bringing down the prices of manufactures relative to other goods (ex. Commodities).
- (+) Many tradable goods are services (1/3 of Portuguese exports + tourism revenues not accounted in the current account).

The government may help:

- 1. Breaking up with inertia by helping entrepreneurs to achieve their first internationalization
- 2. Adjusting the incentive packages so as to induce the allocation of resources to T
- 3. Use taxation
- 4. Promoting more competition in N
- 5. Providing vocational training for workers in transition, so as to assure the existence of qualified pool of human resources to sustain the industry upgrade.
- 6. Fastening the licensing process, reducing red tape, etc.

Of course, all intervention needs a careful understanding of the prevailing incentives.

In a broader perspective:

- The government has a very important role in getting the prices right and in providing a well functioning institutional set up so that creative destruction is not impaired by excess regulation and high transaction costs.
- It is also the responsibility of the government to reduce waste and to optimally size the level of intervention so as to achieve a proper balance between the benefits of provision and the costs of taxation.



Government expenditures crowd out private expenditures.

A favourable combinations of taxes and public services is a mostly effective device to achieve faster productivity growth.

In Portugal, unfortunately, wrong incentives have prevailed in the public administration for too long.

This gave rise to an excess burden for tax payers that did not translated into social benefit.

The ongoing reform in the public administration, which attempts to achieve a better alignments between the public officers' interests and the social interest, is a critical step to bring Portugal back to convergence track.



unused

