How Bad, How Long?

A tentative attempt in forecasting the crisis depth and duration.

Jacques SAPIR[1]

The present paper focuses on the possible extent of the current crisis as induced by the global financial turmoil the so-called "Subprime" crash induced. It builds on previous papers, which have been presented in various occurrences since December 2007[2]. This paper is then not to concentrate on the financial crisis dimension but more specifically on impacts on the 'real' economic sector.

It will begin by a review of assumptions and theoretical issues underlying the current crisis understanding. Recessionary forces in the US and European economies will then be addressed to try to draw a map till 2010.

0. Assumptions and Theoretical Issues.

So far implications on the 'real' economic sector have not been fully understood. This explains why published forecasts on the recession or possibly depression in the US economy but European economies as well have been so diverging during 2008 first quarter[3]. The central assumption of the analysis presented here is that the "Subprime" crash has been a trigger but not the main cause of the present crisis.

0.1. Assumptions.

Economic disorders are going much farther and deeper than what developed on the US (but also British…) mortgage market. If, from a day to day perspective, unregulated global finance looks as the main culprit, there are good reasons to think that the institutional unbuilding, which led to the financial side of the crisis, has actually been a symptom of a more global disorder.

This assumption, if vindicated, could entail a pivotal re-assessment of the current crisis.

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[1] Director CEMI-EHESS research centre, Paris. Contact: sapir@msh-paris.fr.

[2] These occurrences include presentations made at the Russian-French Seminar co-organised by CEMI-EHESS and Institute of National Economy Forecasting, Russian Academy of Science at Vologda in December 2007, before the *Moskovskaya Shkola Ekonomiki's* Faculty seminar in December 2007 and at the Troïka-Dialog organized RUSSIA-FORUM on January 31st, 2008. The financial dimension has been studied in J. Sapir, "Global Finance in Crisis and Implications for Russia", *CEMI-EHESS Working Paper*, CEMI-EHESS, Paris, March 2008. "Global finance in crisis – A provisional account of the "subprime" crisis and how we got into it" *Real Economics Review / Post-Autistic Economics Journal*, June 2008, forthcoming.

[3] This is particularly obvious as far the US or the German rate of growth for 2008 and 2009 are concerned. For the latter the OECD was forecasting for 2009 1.6%, against 2.2% by the European commission, 1.2% by the German government and 1.0% by the IMF.

Two explanation main lines are possible. The first one, which so far is predominant, sees the current crisis as the result of limited policy mistakes in the financial regulation field. Regulatory agencies, and to some extent rating agencies too, are then to burden the blame and solutions could be relatively easily implemented. In this scenario we could emerge from the current crisis relatively quickly (by late 2009) and in an economy mostly unchanged, be it at national or international level, but for e revamping of financial regulations.
There is however a second possible explanation line. Finance has been de-regulated because of pressures building up in the 'real' sector. Finance had to accommodate to a much deeper disorder resulting from economic and institutional reshaping induced by "Conservative Revolutions" implemented from the 80's. If so the current crisis is to be understood as the end of not just a given business cycle but a global political cycle. Its extent and duration are then to be much more severe than in the first line of explanation. We would not exit from the crisis without much widespread institutional and policy changes than ones involved by the first line of explanation.

A side effect of the second explanation line would be that the current crisis is not to be "global" in the common sense but to hit disproportionately countries whose economic institutions have been more fully reshaped by "Conservative Revolutions" than others. The current "decoupling" of Asian but also Russian economies with trends predominating in the US and European economies are here to be noteworthy. Behind what looks like another financial crisis we could well be confronted to an important economic power shift.

0.2. Theoretical issues.

As in every large-scale crisis, several theoretical points have come to the limelight. The huge support the FED gave to private banks raised obviously the issue of a *moral hazard* situation. This is quite systematic in any financial crash when Central Banks have to play their lenders of last resort act. However, other important theoretical issues have been at stake.

The lack of prudential restraint in lending has not just been the result of the deregulation process, which culminated in the Glass-Steagall Act demise of 1999. Competition among mortgage brokers and more generally speaking among various kinds of financial actors (Banks, Insurance companies, Hedge-Funds) has been instrumental in what can be retrospectively seen as a dereliction of (prudential) duty. This explains how and why mortgage-market special compartments, which were of limited importance in the 90's became so relevant by 2005/2006. The same can be said about the blossoming of new and highly complex financial derivatives like CDO's-squared. Their fast development was a direct result of the cut-throat competition among financial actors. Even the IMF, in its Global Financial Stability Report of April 2008, had to acknowledge that:
"*…some complex and multilayered products added little economic value to the financial system. Further, they likely exacerbated the depth and duration of the crisis…*"[4].

Far to promote efficiency, competition has actually seriously undermined financial stability and led to a string of unsustainable decisions. This is a classical case of *adverse selection* and raises the issue of how much competition is actually needed in finance.

[4] IMF, *Containing Systemic Risks and Restoring Financial Soundness*, Global Financial Stability Report, April 2008, Washington DC., p. 54.

Microeconomics of *adverse selection* are known for quite long[5], but their macroeconomic impact seems to have been seriously understated. The actual value of competition policies, as promoted in the wake of "Conservative Revolutions" is to be seriously re-assessed. More generally speaking, the paradigm of competition is to be seriously questioned. It is a point Joseph Stiglitz raised in his 2001 Nobel Prize lecture[6], which needs to be forcefully rammed home to many economic policy decision-makers[7]. Highly competitive markets are not necessarily the best coordination tool we need and fostering more competition could be efficiency destructive because no market can be informationally efficient in the real-world economy[8].

Another point frequently raised in reports commissioned on the "Subprime" crisis is the impact of economic context on individuals behaviours. The already quoted IMF report then states:
"…*the benign performance of credit markets since the early part of the decade gave investors a false sense of security*"[9].
The same report insists on "normal market conditions" as a perquisite of accounting rules[10], and the Financial Accounting Standards 157 itself defines the "fair value" concept as a price a market defines in "orderly conditions"[11]. The IMF now acknowledges that such rules have created "*flowed metrics for evaluating the default risk of portfolios*"[12], and that the fair value is "*compounding market instability*"[13].
Albeit belated these acknowledgements are to be welcomed. However one can't escape the feeling that the IMF, a well-known staunch defender of axiomatic approach in economics when it comes to inflation, has been pushed back to pure empirical "story-telling" as in some institutionnalist works it earlier vilified. Actually both the impact of contextual environments on individuals behaviours and the presence of huge preferences instability under surprise events have been well known for nearly three decades[14]. The impact of "surprise" on market-based expectations has been thoroughly analysed even earlier[15]. The very fact that the traditional theory of rationality, on which mainstream economics are heavily lying, has no

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[5] J. Riley, "Informational Equilibrium", *Econometrica*, 47/1979, pp. 331-360; M. Rothschild & J. Stiglitz, "Equilibrium in Competitive Insurance Markets", in *Quarterly Journal of Economics*, vol. 90, 1977, n°3, pp. 629-649.

[6] J.E. Stiglitz, "Information and the Change in the Paradigm in Economics", in *American Economic Review*, vol. 92, n°3, June 2002, pp. 460-501, p. 460.

[7] The point has been made in J. Sapir, *Quelle économie pour le XXIè siècle*, Odile Jacob, Paris, 2005. See chapter 2, 3 and the conclusion.

[8] S.J. Grossman et J.E. Stiglitz, "Information and Competitive Systems" in *American Economic Review*, vol. 66, n°2/1976, *Papers and Proceedings*, pp. 246-253, and "On the Impossibility of Informationally Efficient Markets" in *American Economic Review*, vol. 70, n°3/1980, pp. 393-408.

[9] IMF, *Containing Systemic Risks and Restoring Financial Soundness*, op.cit. p.55.

[10] Idem, p. 58.

[11] Financial Accounting Standards Board, "FASB Interpretation n°46. Consolidation of Variable Interest Entities", *FIN 46R*, Norwalk, Conn. December 2003.

[12] IMF, *Containing Systemic Risks and Restoring Financial Soundness*, op.cit. p.64, box 2.4.

[13] Idem, p. 65.

[14] S. Lichtenstein et P. Slovic, "Reversals of Preference Between Bids and Choices in Gambling Decisions" in *Journal of Experimental Psychology*, vol. 89/ 1971, pp. 46-55. Idem, "Response-Induced Reversals of Preference in Gambling and Extended Replication in Las Vegas", in *Journal of Experimental Psychology*, vol. 101/1973, pp. 16-20. A. Tversky et D. Kahneman, "Rational Choice and the Framing of Decisions" in *Journal of Business* , vol. 59, n°4/1986, part-2, pp. 251-278

[15] G.L.S. Shackle, *Anticipations in Economics*, Cambridge University Press, Cambridge, 1949. For a contemporary assessment of Shackle's ideas: P. Beaugrand, "Le temps, l'imagination et l'incertitude dans la théorie du professeur G.L.S. Shackle", in *Revue Économique*, vol. 33, n°2/1982, mars, pp. 297-322.

actual grounding is now a well-known fact[16]. Implications for economic theory as well as in specific markets have been thoroughly analysed[17], and an alternative view of rationality promoted[18].

The current financial crisis is then raising a two-pronged issue. First, it highlights that major financial institutions are, like the French military establishment in 1939 “a war behind”. They have not integrated into their own theoretical framework progresses made a generation ago. Second, what is clearly needed now is a macroeconomic theory consistent with progresses made in microeconomics.

I. What extent for the US recession?

Because the crisis originated from the US mortgage market, its impact on the US economy has been so far the most severe. In the same time, the mortgage market crash is shedding a new light on the last decade US growth pattern and more generally on the US economy till the mid-80’s.

I.1. The US “false growth” from 1999 to 2007.

The US economy has experienced an average 2.6% yearly growth rate from 2002 to 2007, which is the lower rate since the early 80’s. The average yearly growth for the 1983-1990 expansion period has been 4.0% and for the 1992-2000 expansion 3.7%. This has been to a large extent the result of a lacklustre wage and salary income real growth, which didn’t exceed 1.8% a year in average compared to around 3.7% a year for 1993-2000, combined to a relatively slow increase in employment. By end 2007, when employment peaked in the US economy, the level was still under the 2003 figure. By any extent the 2002-2007 expansion period has been the weakest of any expansion since the end of World War II.

What prevented growth to be even weaker was a spectacular drop of the gross saving rate, which mostly originated from a drop of household saving rates, achieving an historical low of 0.4% of net disposable income in 2007 against 2.4% in 2002.
Enterprise savings only partially filled the gap hence created and the gross national savings as GDP percent fell from16.6% for the 1992-2000 expansion period down to 13.8% for 2002-2007.
This period appears to be quite unusual. Movements of GDP growth and gross savings look quite related from 1982 to 2002, but the relative post-2002 expansion has not been followed by a significant rebuilding of the gross saving rate after the strong post-2001 fall (figure 1).

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[16] A. Tversky, "Rational Theory and Constructive Choice", in K.J. Arrow, E. Colombatto, M. Perlman et C. Schmidt (edits.), *The Rational Foundations of Economic Behaviour*, Macmillan et St. Martin's Press, Basingstoke - New York, 1996, pp. 185-197.

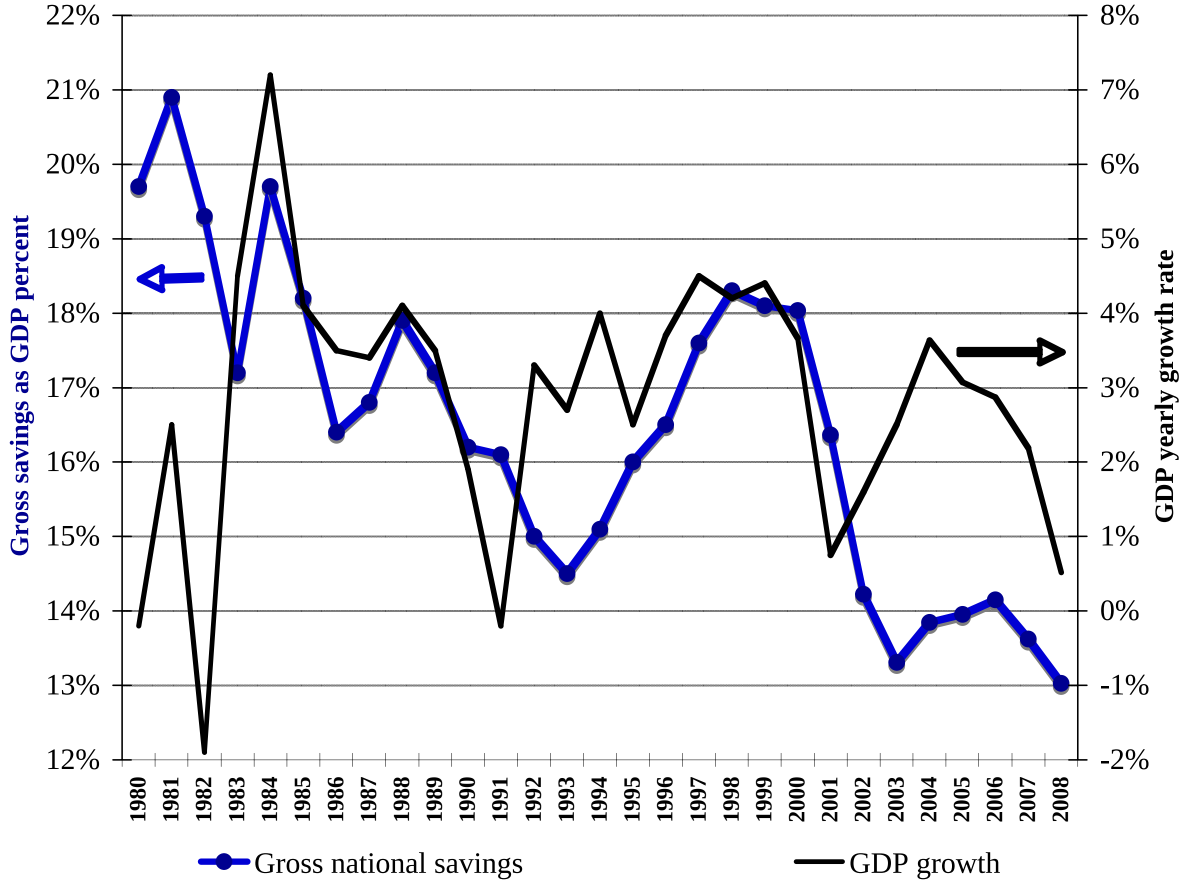
[17] D. Khaneman, J. Knetsch et R. Thaler, "Experimental Tests of the Endowment Effect and the Coase Theorem" in *Journal of Political Economy*, vol. 98, 1990, pp. 1325-1348. L. Ausubel, "The Failure of Competition in the Credit-Card Market", in *American economic Review*, vol. 81, n°1/1991, pp. 50-81.

[18] A. Tversky et R. Thaler, "Preference Reversals" in *Journal of Economic Perspectives*, vol. 4/1990, pp. 201-211. For a more general assessment, J. Sapir, *Quelle économie pour le XXIè siècle*, op.cit., chap. 1, and J. Sapir "Novye podhody teorii individual'nyh predpotchenij i ee sledstvija" in *Ekonomitcheskij Zhurnal*, Vol. 9, n°3/2005, pp. 325-360.

Unusual characteristics of the US recent expansion have already been noted in a previous paper[19].

Figure 1

Comparison of GDP and gross savings in the US economy



Source: BEA - US Dptmnt of Commerce and IMF, *World Economic Outlook*, April 2008.

What sustained too expansion has been the high level of home equity extraction rising real-estate prices allowed. Not only was the housing bubble creating a strong positive *wealth effect* but, through the mortgage market. Through cashing-out from their houses, US households obtained a yearly average of more than 51 USD billions a year between 2002 and 2007 (with a 80 USD billions pike in 2006) against a yearly average of 5.8 USD billions between 1993 and 2001.

Home equity extraction, which amounted for 0.4% of Real Personal Consumption Expenditures between 1993 and 2001 jumped to 2.4% between 2002 and 2007[20]. This imply that *every things being equal* the Real PCE got a yearly boost of 2% from home equity extraction between 2002 and 2007 by comparison of what it got during the 1993-2000 expansion period. This allowed households to maintain high spending rates despite the above-mentioned lacklustre wage and salary growth. Actually, if we add these 2.0% to the actual wage and salary growth experienced between 2002 and 2007, we are falling back to the 3.7% real wage growth rate of the 90's. This however has implied a fast increase in households indebtedness, as the home equity extraction was obtained through mortgage roll-overs, reaching previously untold levels in the US economy (Figure 2).

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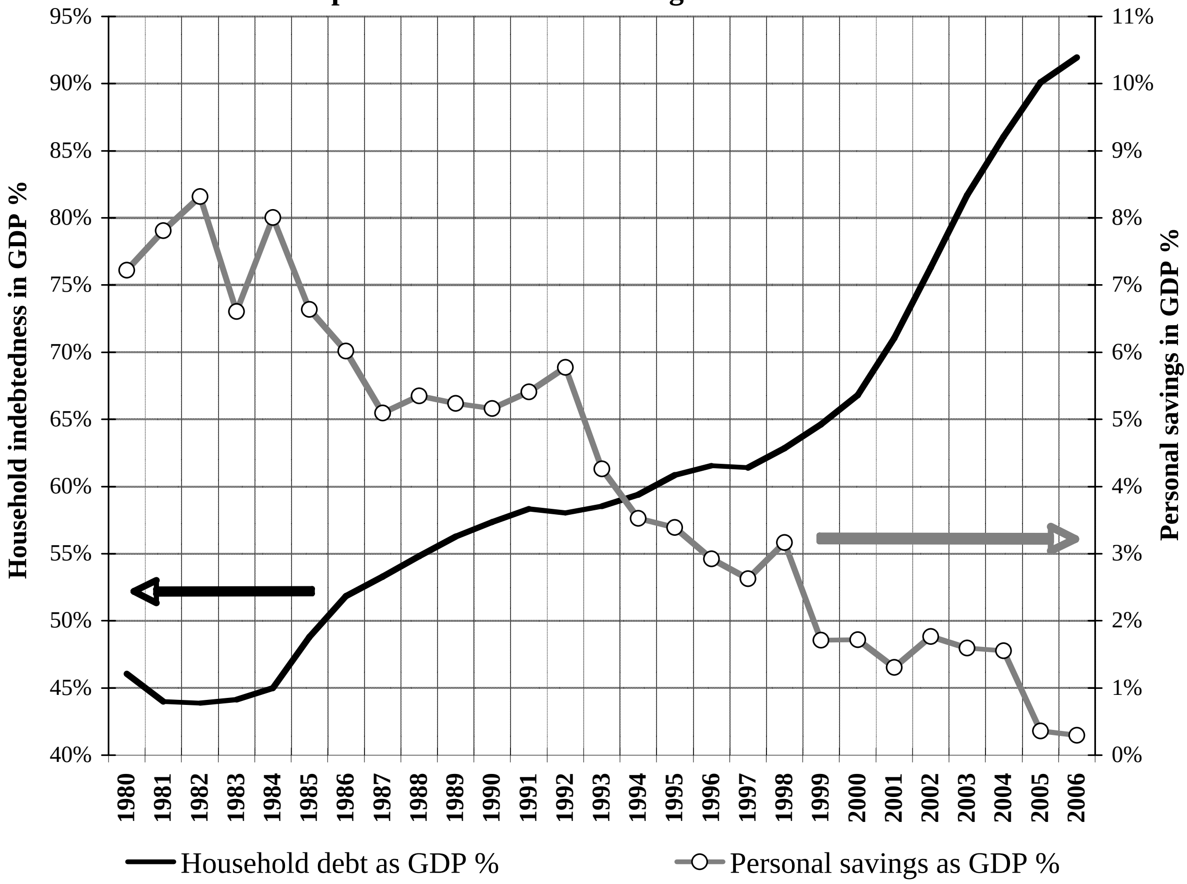
[19] J. Sapir, "Global Finance in Crisis and Implications for Russia", *CEMI-EHESS Working Paper*, op.cit.
[20] Data from the US Bureau of Economic Analysis, US Dptmnt of Commerce.

Figure 2

Comparison of household savings and indebtedness



Source: US Bureau of Economic Analysis, US Dptmnt of Commerce.

It is then possible to speak of a "false growth" to describe the US economy during 2002-2007. Growth had been obtained through manipulation of mechanisms unsustainable in the mid-term. Pressure exerted on industrial wages through the globalization process explains why real wages and salary income have increased so little compared to previous expansions[21].

Table 1
Export Similarity Index with OECD countries. Evolution 1972-2005

	1972	**1983**	**1994**	**2005**
Taiwan	0,14	0,17	0,22	0,22
Hong Kong	0,11	0,13	0,17	0,15
Korea	0,11	0,18	0,25	0,33
Singapore	0,06	0,13	0,16	0,15
China	**0,05**	**0,08**	**0,15**	**0,21**
India	0,05	0,07	0,09	0,16

Source: P.K. Schott, "The relative sophistication of Chinese exports", *Economic Policy*, n°55, January 2008, pp. 7-40, p. 26.

[21] J. Bivens, "Globalization, American Wages, and Inequality" *Economic Policy Institute Working Paper*, Washington DC, September 6th, 2007.

This pressure has been greater after 2002 than in the 90's because low income-level countries have begun a technological ladder-climbing process, which has not been followed by a commensurate increase in local wages (table-1).
It is now impossible to defend the idea that the WTO sponsored globalization has had a positive or neutral effect on developed countries macroeconomics.

However, the globalization impact has been compounded with "Conservative Revolution" effects, including deregulation and curtailing of social benefits. The upward trend in household indebtedness clearly begins in the early 80's. Economic policies known as "Reaganomics" have undermined the US middle-class, which actually has been the growth engine since 1945. The 90% lowest US incomes were amounting for 66.99% of the US total income in 1979 and only 54.34% in 2005.
"Conservative Revolution" policies have aimed at reducing the share of wages and salary incomes by comparison to corporate profits and have considerably reduced public spending, which had a high equalizing effect.
Combined to globalization effects, these policies have considerably depressed the Personal Consumption Expenditures potential. This would have reduced growth much earlier but for the switch to credit-backed consumption. However, with income growth constrained, lending progressively has out stripped repayment potential. Household savings fell accordingly in a spectacular way during the 90's and the beginning of the XXIst Century(Table 2).

Table 2
Average yearly values of personal savings as Disposable Personal Income % and mortgage debt as personal savings %

	Personal savings as DPI %	Mortgage debt on non-farm homes as personal savings %
1970-1979	9,6%	47,6%
1980-1989	9,0%	58,5%
1990-1999	5,2%	96,0%
2000-2007	1,5%	1112,2%

Source: Bureau of Economic Analysis, US Dptmt of Commerce, data updated on April 13th, 2008.

What made this evolution possible was the strong "framing effect" an upward "bubble" is generating. When the NASDAQ bubble collapsed in 2000, speculative expectations shifted to the real-estate sector. The rise in real-estate prices then induced a strong "endowment effect", which progressively made borrowers deaf to any prudential advise. On the lender side, the cut-throat competition environment deregulation has created quickly favoured an *adverse selection* process. Hence a globally unsustainable process set in from both sides.
There is here no point to try fingering out "irrational" behaviours. If we admit that rationality is always "framed" or context-dependent and that preference reversals are the logical reaction to surprise, then the unsustainable growth of 2002-2007 has been the logical result of rationality. The point missed by mainstream economists is that market-generated "rational" behaviours are not necessarily consistent with mid to long-term stability and growth. Market rationality is consistent with the environment a given market is generating at a given time and no more.
By early 2007 the US economy has crossed its stability threshold by a large extent but it was the "surprise" induced by initial bank and mortgage-brokers collapse, which generated a major change in perceptions.

The development of the US mortgage bubble has then been a symptom of much deeper economic and social disorders. By the same token, the spectacular explosion of structured finance and the softening of prudential behaviours inside financial institutions has been the "rational" result of a global context, framing choice perception, creating new endowment perception and generating so strong a competitive pressure that a "do or die" mentality pervaded at every level[22].
This is an important point to understand how bad the recession is to be in the US economy.

I.2. Toward a deep and protracted recession?

Three factors are pointing toward a severe and protracted recession. Their cumulative effects are to be felt at the very least till the end of 2009 and probably latter.

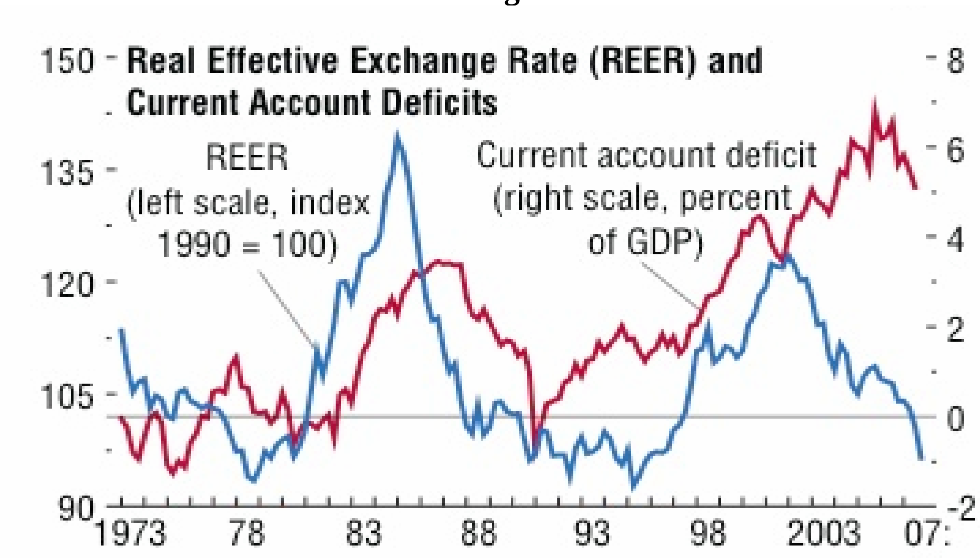
First, the wealth effect is now to go downward, for several reasons.
With a brutal drop in house prices, the home equity extraction is to be considerably reduced. If it would go back to its 1993-2000 levels, this would imply a yearly reduction of the real PCE by at least 2% everything being equal. Note here that would stock prices go down during 2nd or 3rd 2008 quarter, the reduction could be greater. This reduction is to extend at very least till end 2009 and probably till summer 2010.
In previous recession, the household saving rate acted as a kind of income buffer. Households reduced their savings to compensate for falling income from various sources. With a 0.4% rate it is clearly obvious that the saving rate is not to play its usual buffer role. As pension funds have been severely hit by the fall in stock prices till end summer 2007, US households are to be under a strong pressure to reconstitute both their wealth and savings. To the contrary of previous recessions, the saving rate is then to increase, becoming then *pro-cyclical*. Note here that a return to a 2.4% rate as in 2002 would imply a further PCE reduction of 2%.
However, what has been described here is in a way a pure computational approach. What is still not known is to what extent the new context, with the looming threat of mortgage foreclosures and with many family in the neighbourhood expelled from their home, is to impact on US household preferences ranking. One cannot exclude the possibility of households overreacting to the new context and increasing their saving rates to a much larger extent than what is usually forecasted. The effect of the credit constraint now snowballing from the mortgage market to the credit-card and auto-credit markets is also difficult to predict as it could massively change household expectations.
Even if the US government is to implement a larger relieve plan than what Secretary Paulson has designed so far, one can reasonably assume that the wealth effect is to play a deep downward role on the US economic activity at least till 2010.

Second, if bad news are coming from the wealth effect, the situation in the wage and salary income field is no better.
As unemployment is again on the rise downward pressures on real wages are to be quite strong. As the total number of wage-earners is now diminishing, the global wages and salary income inflow is at best to stagnate and could not compensate for the downward wealth effect. At the very best the real wage and salary income growth could be at 0.5% for 2008 and 2009. Combined to the wealth effect, this could implies a reduction of real Personal

[22] The notorious Jerôme Kerviel scandal at Société Générale is here a good case in the point. Kerviel's actions can be seen as a pure example of market-rationality behaviour in the 2006-2007 context and under internal endowment rules set up by Société Générale.

Consumption Expenditures by 1.5% to 3.5% a year in the 24 months going from summer 2008 to summer 2010.
To what extent the fall of internal consumption could be compensated by investments and exports is difficult to assess. US investments have been quite low for a while and there would be some good reasons to expect an increase in forthcoming years. However in a recession the private sector is not very eager to increase its investment effort. Usually a public investment policy would be an effective *contra-cyclical* tool. However, as it is to be explained latter, the US budget is to be severely constrained for 2009 and 2010 fiscal years.
A low US Dollar change rate could boost US producer competitiveness. Nevertheless, if US exports increased during fall 2007 and early winter, the process has been much smaller than expected. If the US Dollar real Effective Exchange Rate has went down to a considerable extent, the current account deficit is still very high (Figure 3). It is also true that so far the US Dollar Real exchange rate has fallen more compared to the Euro than to East-Asian currencies. Shifting most of the US export potential toward the Euro-Zone would create a major economic and political problem. In such a situation, the probability that exports could fully compensate for the internal consumption contraction is very remote.

Figure 3



Source: IMF, *World Economic Outlook*, April 2008, Washington DC, chapter 1, box 1-2.

Third, US public finances are to be heavily constrained in forthcoming months, making a strong *contra-cyclical* budget policy unrealistic.
The housing market crisis and the fall of house prices have already strained local budget revenues in 22 states and in the District of Columbia. The total amount has been estimated to 39-41 US Dollar billions for Fiscal Year 2009. In five other states (Delaware, Louisiana, Michigan, Mississippi and Tennessee) significant budget shortfalls are to appear in FY-2009, but the size of those deficits is still not available[23]. As local budgets cannot run a deficit the Federal budget is to cover those deficits, for a probable amount of 40 to 44 USD billions or local expenditures are to be dramatically curtailed, a process adding its weight to already existing depressive factors.
In the same time the US bank and insurance systems are to be cleared of accumulated bad assets. So far the *Fed* agreed to take USD 29 billion of assets onto its balance sheet. However

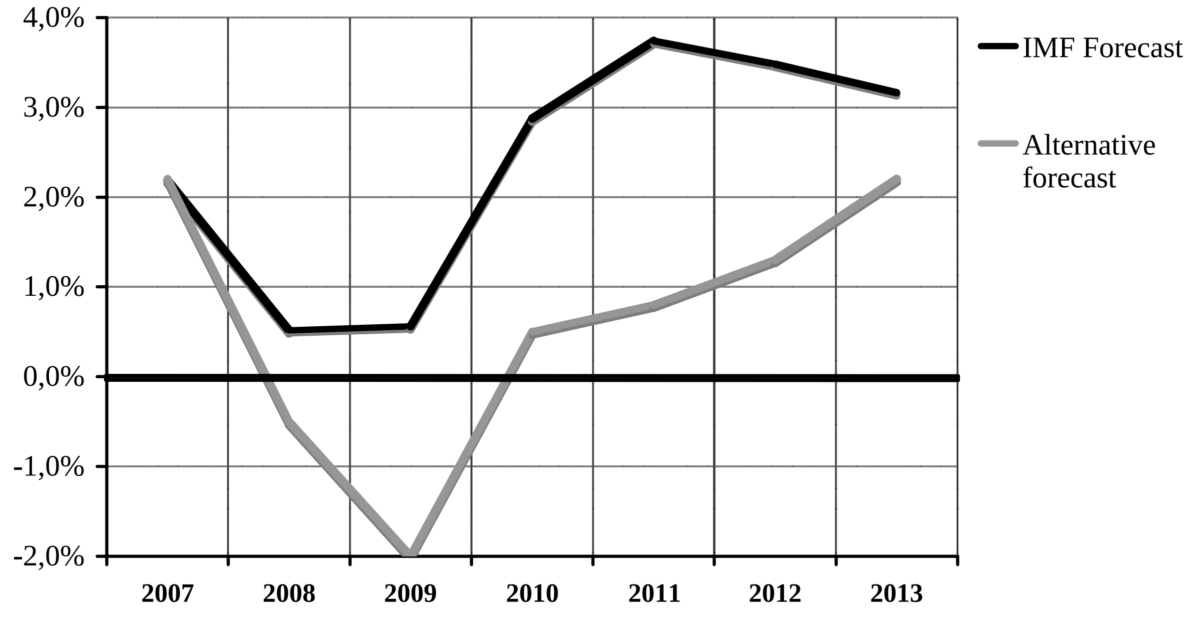
[23] Informations from Center on Budget and Policiy Priorities, “22 states face total budget shortfall of at least $39 Billion in 2009; 8 others expect Budget problems”, *CBPP Policy Brief*, by E.C. McNichol and I.J. Law, April 15th, 2008, Washington DC.

the extent of the bad assets issue is much larger and clearly beyond *Fed* means. A special defeasance system is to be created to rebuild confidence and it could entail buying for USD 450 to 600 billion of “bad” assets[24]. This would have to be done probably by the end of Summer 2008, and the full budget burden (or between 15.0% to 20.0% of the current Federal Budget) is to be carried during FY-2009.
If we introduce into the picture growing costs of the War in Iraq and in Afghanistan, it becomes obvious that we can’t expect the kind of strong *contra-cyclical* budget policy the US policy currently need to avoid being trapped into major a recession. By any extent the FY-2009 budget deficit is to be quite large and so is to be the FY-2010 one, and this without a strong pro-active policy. As already mentioned, no relief can be expected from local budgets, which by the way have still not recovered from the beating they took in 2001 and 2002.

In this context economic forecasts have to be bleak. If we take into account all depressive factors, including their impact on behaviours through the creation of a highly unstable context, even the IMF forecast, usually described as particularly bleak, could be seen as unduly optimistic. The US economy is to experience the worst of the crisis by late 2008 and early 2009, with some improvements by late 2009 and a slow recovery beginning by spring 2010 (Figure 4). It is to be understood that the alternative forecast is not a “worst-case scenario” and does not introduce the possibility (quite real) of a sudden deterioration of the bank crisis or a run against the US dollar.

Figure 4

US GDP growth forecasts



Source: IMF *World Economic Outlook*, April 2008 and personal computations.

It is then reasonable to expect that the US economy is to run through a serious recession, whose effects are to felt till 2011 at best. Unemployment is to increase strongly in 2009 and 2010 and there will be no improvement before probably 2012, when the GDP will recover its actual 2007 level. The recession duration is to be much longer than what the US

[24] This has already been advocated by P. Krugman, “Partying Like It’s 1929”, *The New York Times*, Op-Ed column, March 21st, 2008.

economy has suffered since 1950. The “Subprime” crisis is then not to be a short-duration “blip” in the US growth, not just because of the banking crisis severity but because this crisis exposed to what extent the growth experiences between 2002-2007 has been unsustainable and to what extent economic and social policies implemented in the wake of the early 80’s “Conservative Revolution” have weakened the US economy growth engine. The possibility that the US economy will after 2011/2012 enter into quite a long slow-growth period (1.5% to 2.0% a year) can’t be ignored.

II. Impact on economies of EU countries.

Forecasting the economic climate among EU countries implies first to discriminate between Western and Eastern Europe, then to discriminate between countries where “Conservative Revolution” principles have been more thoroughly implemented and others where the traditional post-war European socio-economic model is still partly functional.

II.1. Western European heterogeneity.

Main Western European countries are not making for an homogeneous economic group. This is true not just because Great Britain is not part of the Euro Zone but also because a strong heterogeneity inside the Euro Zone. The common currency has so far failed to induce a structural convergence process.

One important difference is coming from the fact that some economies have followed the US “Conservative Revolution” pattern more closely than others. This can be seen when comparing general savings (table 3). Great Britain looks closer to the USA than Germany, France and Italy. Actually, Spain is certainly closer to Great Britain than to France in this respect.

Table 3
General savings as GDP percent

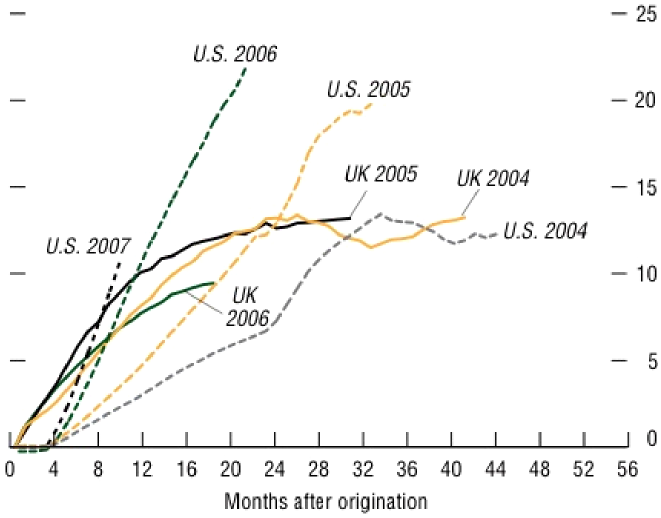
	Germany	France	Italy	Great Britain	USA
2000	20,07	21,20	20,16	15,39	18,04
2001	19,51	21,50	20,52	15,56	16,37
2002	19,28	20,18	20,35	15,81	14,22
2003	19,29	19,71	19,37	15,72	13,31
2004	21,34	19,85	19,83	15,86	13,85
2005	21,67	18,96	18,93	14,99	13,95
2006	22,81	19,26	18,59	14,10	14,15
2007	23,83	20,42	19,31	13,63	13,62

Source: IMF *World Economic Outlook*, April 2008.

In economies where the US pattern is more predominant we find a high household indebtedness ratio (124% of GDP in Spain, 130% in Great Britain and Ireland), a large involvement of the banking sector in credits to the real-estate sector (up to 65% of bank assets in Spain) and consequently a high vulnerability to a mortgage crash similar to the US one.

To a large extent the British economy looks as exposed as the US one. The *NorthernRock* bank failure Fall 2007 is here clear a symptom. So far the British government reacted strongly. *NorthernRock* was nationalized to prevent a general bank run. Still, more difficulties are looming ahead. In the latest edition of the *World Economic Outlook* the IMF is forecasting a slow down of the growth rate from a 2.75% average for 2000-2007 to 1.6% for 2008 and 2009. This is probably overly optimistic. The high uncertainty pervading the financial system combined to losses households suffered in pension funds during the last winter is to probably push up the saving rate with a contraction of personal consumption spending. The fall in home prices is to have the same downward wealth effect than in the US economy. The yearly rate of growth could be in the 0.5%-1.0% range for 2009 and recovery is to happen later than forecasted by the IMF (possibly 2012/2013).

Figure 5
US and UK mortgage nonconforming delinquencies as a percent of origination



Source: IMF *Global Financial Stability Report*, April 2008, Washington DC, p. 8.

The situation in Spain is not without similarities with Great Britain and the US economy. The strong growth the Spanish economy experienced till 2000 was largely pulled by a highly speculative real-estate market. Fuelled both by internal and external demand (mostly in tourism resort areas) new house constructions on a 12 months basis reached 800,000 in 2006.

However, as Spain was in the Euro Zone an economy were "Conservative Revolution" principles have been more significantly implemented than in Germany, France or Italy, this high demand was not pulled by a commensurate increase in income but by a growing indebtedness. Household debt reached GDP 124% by 2007. Spanish banks were also extremely active in the real estate sector and 65% of their assets were related to this sector by 2007. During 2000-2007, this expansion was made possible by a steady rise in house prices. In 2007 the squared meter average price in urban areas was higher by 20% in Spain than in France, where income standards are still higher[25]. To a large extent, Spain looks like the European version of the US "false growth" situation described here above.

The real estate sector began its downturn during Fall and Winter 2007. The number of new constructions on a 12 months basis dropped sharply to 375,000 early 2008. Some forecasts are putting this figure to 100,000 by the end of 2008, which would imply to any extent no new constructions during Summer and Fall 2008.

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[25] Data from the Central Bank of Spain and the Trade Chamber of Catalunya.

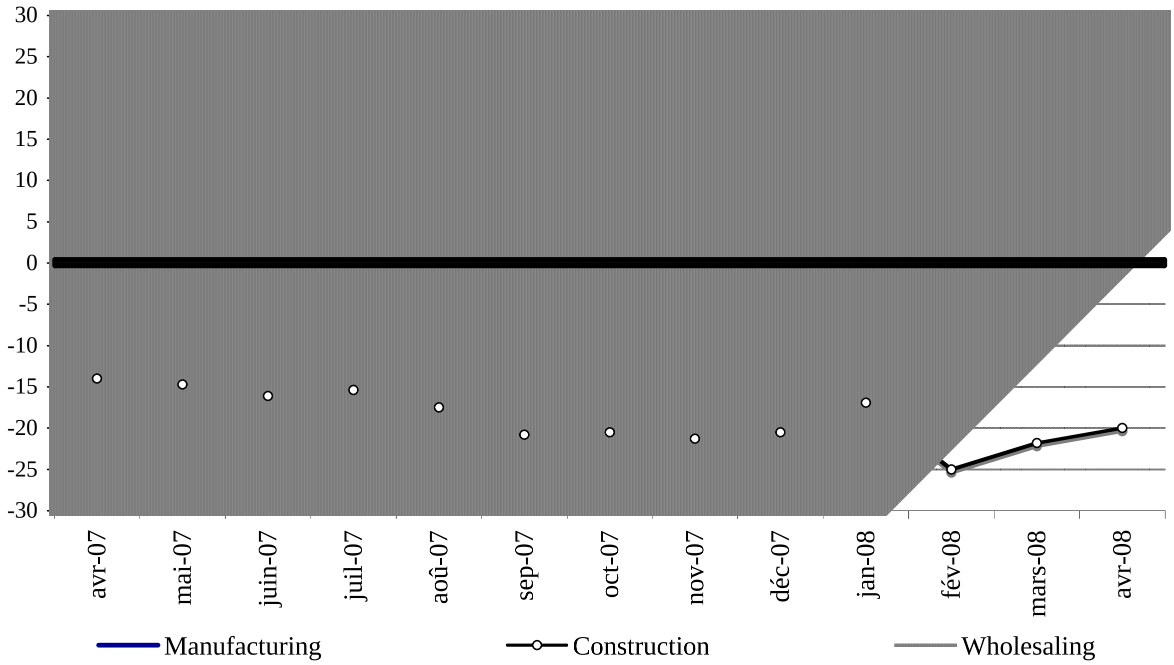
In such a situation, and considering the high debt burden on Spanish households shoulders[26], a consumption crunch is unavoidable. It is to be compounded with a strong reduction in investments, directly linked to the current contraction of the house-building sector. Spanish banks are highly vulnerable to a strong real estate sector downturn. Even if their profit ratios are still good by Spring 2008, they are to suffer a serious shock by next summer.

The Spanish government has already announced an economy rescue plan and is to inject 8 Euro billions by 2008 and 10 by 2009. This is a step in the good direction, but is still much too conservative. As the government debt has been very small in Spain (34% of GDP) and considering the fact regional governments have more leeway for actions than in the US system, one can assume that public authorities are to act in a way to prevent the crisis to drift out of control. However, there is to be no room for error in economic policy.
In such a situation, the yearly GDP growth is to be more depressed than what is currently expected. Yearly GDP growth averaged 3.6% in Spain for 2000-2007. The IMF is now forecasting 1.8% for 2008 and 1.7% in 2009. This again is probably optimistic. Growth could fall under 1.5% in 2008 and under 1% in 2009 even without assuming a major bank crash, which could plunge the Spanish economy into a fully-fledged depression.

The situation of Germany is of particular interest as the economy has been for long the leading one in Western Europe and is exerting a powerful influence on its neighbours. To some extent too, Germany, like France or Italy is still closer to the traditional Western European economic and social model than Great Britain and Spain.

Figure 6

Business climate in Germany



Source : IFO April 2008 Business Survey, seasonally adjusted indexes.

Despite reforms implemented by the Shroeder's government in 2004 and 2005, which have boosted economic activity, the business climate has been steadily deteriorating since

[26] The yearly reimbursement burden ratio has reached 50% of household disposable income by early 2008 and is to creep toward 55% during 2008.

spring 2007. It has been argued that the German industrial structure could shield the economy from the impact of a strong Euro. However, since summer 2007, when the Euro began to appreciate quickly against the US Dollar, business expectations have fallen to a significant extent.
There is currently a strong gap between the assessment of the economic situation (which is still positive) and business expectations. This is particularly true in manufacturing industry. Here the number of survey responses rating the situation as "good" overtakes responses rating the situation as "poor" by 30 points. However, when it comes to expectations, the number of responses rating the future situation as "most unfavourable" overtakes ones rating the future situation as favourable by 9 points.
This huge discrepancy between situation assessment and expectations is the result of the sharp drop in future contracts. The current situation is assessed on the basis of contracts made 6 to 12 months earlier. For the April 2008 IFO survey the situation assessment reflects the German industry order book as it was late spring 2007. However, the strong Euro is making German products non competitive on various markets. The German industry order book is deteriorating fast, which explains why expectations are gloomy. The very fact that now event the German Minister of the Economy is protesting against the Euro exchange rate is a clear signal the situation is deteriorating fast in Germany[27].

As German banks have been quite exposed to the "Subprime" crisis, and with some pension funds already experiencing difficulties, the personal saving rate of an aging population is to increase in forthcomings months. Investments have considerably slowed down in 2002 and 2003 and never completely recovered. Internal demand is then not to be a substitute to dwindling exports.
One can then expect economic activity to slow down significantly from end Spring 2008 on. The extent of this process is still difficult to forecast. IMF figures are particularly bleak for Germany, with a GDP growth of 1.4% in 2008 and 1.0 in 2009 and the German government ha modified its own forecast and is now converging toward equally bleak predictions[28]. However, IMF forecasts for Germany are not taking into account either a US recession deeper than forecasted, nor potential side effects of a Spanish crisis on German banks and insurance companies. Here again, IMF forecasts are to be understood as "best-case" predictions.

The French economy has been widely described in the internal political debate as "stagnating", which has been a highly unfair judgement. Actually the French average yearly growth for 2000-2007 has been significantly higher than in Germany or Italy, and comparable to Netherlands. The French saving rate is higher than in Great Britain and Spain and if the government debt is higher than in Spain (66% of GDP) household indebtedness is significantly lower than in Great Britain and Spain. French banks seems to have been less exposed to the "Subprime" crisis than German or British ones and the French real estate market has been much less affected by speculation than ones of Great Britain and Spain. Mortgage backed loans are not very used in France and this has reduced the potential for a bubble during the last three years.
It is however true that the French industry vulnerability threshold to the Euro exchange rate is somewhat lower than the German industry one. The strong Euro is a serious problem when the EURO/USD change rate reaches 1.25 USD for 1 Euro, when it seems to be a serious problem in Germany at 1.40 USD or higher.
Another disturbing point is the current government economic policy. Since general elections of June 2007, the new government is implementing a string of structural reforms aiming at

[27] German Minister of the Economy Mr. Michael Glos press release, April 24th, 2008.
[28] See *Les Echos*, April 25th and 26th, 2008, p. 6.

increasing the labour-market flexibility and diminishing labour costs. Unfortunately these reforms are to make their impact felt during 2008 and 2009 when the demand is to be already depressed by the crisis in neighbouring economies. Tax breaks included in the French "fiscal package" are much too concentrated on the income upper strata to have an effective impact on consumption. To some extent the policy the new Prime Minister Mr. Fillon is currently advocating is not without similarity by the one Pierre Laval implemented in 1935.
Such a policy is ill-timed and will probably increase the French economy vulnerability during 2008 and 2009. So far, the French government has not showed a willingness similar to the German one to publicly acknowledge how bad the situation is to be. A 1.7% yearly GDP growth target has been maintained. The actual growth nevertheless is to be under 1.5%.

Italy has known a very sluggish growth during the last 5 years. By any extent Italy is the economy suffering the most of the Euro over-valuation. So far Italian banks have not disclosed significant losses and write-offs but the Italian banking system is not extremely transparent. Italian insurance companies have suffered from the global financial crisis and it would be surprising if Italian banks were to fully escape the financial blood bath. Consumption is already quite depressed even if investment is like in France still at a higher level than in Germany and Great Britain. With a huge public debt (over GDP 100%) the new conservative Italian government is to lack room to manoeuvre.

To sum up, Western European countries are to suffer significantly from the current crisis even if individual countries are to experience very different situations. The crisis is to be particularly hard in the two countries where economic reforms inspired by the US "Conservative Revolution" had been the most important, Great Britain and Spain. Even without the 'worst-case' scenario of a massive bank collapse in Spain, other countries are to know a serious recession at the very least till 2010 (table 4).

Table 4
IMF and alternative estimates for Euro Zone main countries growth till 2011

	Germany	**France**	**Italy**	**Spain**	**Netherlands**
Average 2000-2007	1,42%	1,99%	1,40%	3,63%	2,06%
2008	1,4%	1,4%	0,3%	1,8%	2,1%
2009	1,0%	1,2%	0,3%	1,7%	1,6%
2010	1,7%	2,5%	0,7%	3,1%	2,1%
2011	2,0%	2,6%	1,0%	3,6%	2,2%
Predicted average 2008-2011	1,5%	1,9%	0,6%	2,5%	2,0%
Alternative estimates					
2008	1,3%	1,3%	0,3%	1,4%	na
2009	1,0%	1,1%	-0,5%	0,7%	na
2010	1,1%	1,5%	0,3%	1,0%	na
2011	1,5%	1,8%	0,7%	2,2%	na
Predicted average 2008-2011	1,2%	1,4%	0,2%	1,3%	na

Source: IMF estimates published in *World Economic Outlook*, April 2008, database
Alternative estimates: result of author's pooling of forecasts made in 3 French, 1 Swiss, 2 German and 1 Belgium bank, late April 2008.

There is then no doubt the Euro Zone is to face significant economic hardship in years to come even if the recession is to be less severe than in the US economy.

II.2. Impact of the crisis on Eastern EU economies.

Eastern European countries have known a strong growth from 2000. But for Bulgaria they have all overtaken effect of the 1990's depression. This high growth has been generated by a strong investment process, which has been helped by an important FDI flow, concentrated on Poland, Hungary and the Czech Republic, and also quite pro-active public policies. However these last have generated a strong budget unbalance, particularly in Hungary, Poland and the Czech Republic, as well as a strong current account deficit[29]. Labour productivity increased, but from a very low initial level[30].

An important point to be remembered here is that the OECD export similarity index increased faster in China and India than in most Eastern European countries from late 70's to today. By 1983, Hungary and Poland were at the same level than China (8%) with India slightly lower (7%) and Rumania probably trailing even lower. By 2005, Poland has reached 17%, Hungary 13% and Romania 8%. However, China has reached 21% and India 16%[31].
Eastern European economies developing along the path of low-cost industrial goods exporters are to suffer an ever greater competition from East-Asian economies if they are not able to make considerable gains both in productivity and production quality in forthcomings years. To some extent the Eastern European economies development path was under fire even before the beginning of the current crisis.

Table 5
GDP growth in EU Eastern economies

	Bulgaria	**Czech rep.**	**Slovakia**	**Hungary**	**Poland**	**Romania**
2003	5,0%	3,6%	4,2%	4,2%	3,9%	5,2%
2004	6,6%	4,6%	5,4%	4,8%	5,3%	8,4%
2005	6,2%	6,5%	6,0%	4,1%	3,5%	4,1%
2006	6,1%	6,4%	8,3%	3,9%	6,1%	7,7%
2007	6,0%	5,0%	8,5%	2,5%	6,0%	6,0%
Average 2000-2007	**5,3%**	**4,1%**	**5,3%**	**4,1%**	**4,1%**	**5,5%**

Source: J-P. Pagé (ed.), *Tableau de Bord des pays d'Europe Centrale et Orientale*, various years.

There are no doubts however those Eastern European economies are to be hit hard by the current crisis in forthcomings months. Factors pointing to this direction are numerous.

(i) If economic activity is to slow down in the Euro zone and particularly in Germany and France demand is to be seriously constrained. Not only is activity to slow down but the trade deficit is to widen if Eastern European exports toward the Euro zone are to be reduced.
(ii) Banks in Eastern European countries are heavily dependent from Western banks, be they European or US. The current credit crunch is then to hit hard the Eastern European banking sector.

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[29] J-P. Pagé, "Europe Centrale et Orientale: rattrapage et développement sur fond de crise financière mondiale" in J-P. Pagé (ed.), *Tableau de Bord des pays d'Europe Centrale et Orientale 2007*, Etudes du CERI n°141, CERI, Paris, December 2007.
[30] Labour productivity at the Dacia-Renault Pitesti plant in Romania is significantly lower that at the Moscow Renault Avtoframoz plant.
[31] P.K. Schott, "The relative sophistication of Chinese exports", *Economic Policy*, n°55, January 2008, pp. 7-40, p. 26.

(iii) The combination of export reduction and reduced activity is to reduce budget revenues growth during 2008 and 2009. As most Eastern European countries are running high budget deficit and considering the fact local financial markets are to be short of liquidity for a time, an adjustment process on the expenditure side is unavoidable and is to contribute too to economic growth reduction.

(iv) Most eastern European economies have extremely unfavourable energy balances. The rise in oil prices is to have a strong impact both on economic activity and inflation. This would also contribute to further deficit of the trade balance.

Economic growth is then to slow down to a significant extent during 2008 and even more in 2009. This growth recession is to be combined with increased trade deficits and rising inflation. The very positive economic image Eastern European economies benefited from during last years could be quickly overturned, would a significant bank crash or some political troubles happen during coming months.
By any extent, the FDI flow is to be reduced, raising a serious current account problem. The combination of the crisis short-term impact and more long-term issues could have significant changes on the Eastern Europe economic climate.

II.3. European economies through times of crisis: diverse and not unified?

The current crisis effects on European economies are to be widely different from one countries group to another. There is nevertheless no doubt that Europe is to be hit hard and that the Euro zone is to know a significant and long recession.
Countries whose economy has come closer to the US model are to suffer most. Great Britain, Spain and Ireland are here noteworthy. Spain is certainly the most vulnerable economy, but Spanish public finances are also ones allowing the greatest freedom of action. The strength and timing of public authorities response to the crisis are here a crucial factor.
The three main Euro zone economies, Germany, France and Italy are also to suffer from the crisis, but are less exposed than Great Britain, Spain and Ireland. The economic downturn is to be more spectacular in Germany than in France as the gap between economic actors perceptions of the present and the future situation is the greater in Germany. Economic policies are the main issue in France and Italy. In France, bad timing and a government unwarranted fascination with “Conservative Revolution” economic model could harm economic activity more than expected. One important point usually not stressed is the existing asymmetry between Germany on one hand and France and Italy on the other to Euro overvaluation consequences. This asymmetry is raising a difficult problem for shaping a unified policy. If the USD to Euro change rate is to stay over 1.55 USD for 1 Euro, the German economy is to suffer enough to make this asymmetry irrelevant. It would then be possible to devise a joint policy. However, if the exchange rate would be comprised between 1.45 and 1.55 USD for 1 Euro, consequences would be so asymmetrical that devising a joint policy could be impossible. The Euro zone could then be strained beyond the rupture point.

Eastern European economies could experience a brutal downturn aggravated by a strong framing effect by the end of 2008 and early 2009. The buoyant growth experienced in those economies was already quite frail before the crisis outbreak. One central issue could be substituting new markets to the depressed Euro zone. Russia and the CIS could here be a partial solution, but this would imply some climatic restatements of national policies. Hungary, Romania, Bulgaria and Slovakia are here probably in a better situation than Poland

and the Czech Republic where industrial activity is strongly dependent to the economic climate in Germany.
To some extent, the same reasoning applies to some Nordic economies. The Finnish and Swedish economies are already pulled by the strong Russian growth (and Norway is obviously a special case). Being relatively small economies, both countries could run through the current crisis with much less problems than other European economies.

III. Conclusion.

The current economic crisis is definitely a major economic event, which is to change to a considerable extent the global economy as we know it. It is to have an impact well over just the financial sphere and it is to unfold with all its consequences during Year 2008 second part and early 2009.

The US but also European economies are to enter a recession, which is to be both deeper than what is usually though and more protracted. In the US economy, this recession is probably to be the more severe experienced since 1950. European economies are to be strongly affected too, but to a lesser extent. The situation is to be more closely comparable to what we have known in the 80's and 90's. However, this recession is to have several specific characteristics compared with previous similar episodes in the 80's and 90's.
First, the recession is to be mainly one of "Western" economies. The uncoupling process frequently alluded about since last winter appears to be substantiated. The crisis impact on East Asian economies is to be pretty mild. A similar situation is to happen with Russia. One can then reasonably predict that world growth is to be pulled by China, India and Russia at least till 2010 and possibly later. The impact of the Russian fast and robust growth is to be felt even inside the EU. This situation is to change economic relations on the European continent to a significant extant.
Second, this crisis combines short-term dynamics and long-term ones. It is basically a crisis of the economic model "Conservative Revolutions" have fostered since 1980. It is also a crisis of the economic world order called "Globalization". This combination of short and long-term dynamics makes an early and fast recovery not a very probable event. Even if the worst of the crisis is to be felt by winter 2008-09 in the US economy, and probably during spring or summer 2009 in Western European economies, the recovery is to be protracted and plagued with high instability at least till long-term crisis factors will not be addressed. We are entering a new economic context, which is to frame economic behaviours and thinking for quite a long time.

In the monetary-financial sphere, two issues are to come to the forefront and are to have a deep impact on possible recovery paths.
The first one is obviously how deep the US Dollar could fall in coming months, and how long could it stay at a low level. There is so far a limited consensus among analysts to expect the Euro to USD exchange rate to stabilise by 1.48 USD to 1 Euro by end 2008. This could be but one is to be aware of factors weighting down on the USD exchange rate. The US public deficit is to grow to a considerable extent for FY-2009 and possibly FY-2010. As it would be counter-productive to raise interest rates to make US T-Bonds more attractive, part of the US newly issued debt is to be monetized. By the way the stronger the recession the less attractive would be investment in the US economy. Those factors are to seriously reduce incentive to buy USD denominated debt (be it in T-Bonds or Agencies Bonds). If current holders of US

debt instruments are to switch even for a limited share of their portfolio toward other currencies (and particularly the Euro), the USD exchange rate is to fall deeper than currently expected. Another "surprise" in Shackle's sense on this point could well trigger a run against the USD. This could have tremendous consequences, igniting an even greater speculation on commodities than currently and creating such havoc in the US economy that estimates presented in this paper could well appear as over-optimistic.
The second issue concerns Euro future. It is linked to USD fate. Would the exchange rate stabilise at 1.48 USD for 1.0 Euro, we would be in a "worst case" scenario. At this level the above-mentioned structural asymmetry between Germany and France would prevent a common position on the Euro-Zone management to emerge. As greater economic difficulties are looming ahead, this could lead to a dismantling of the Euro-Zone, with some countries leaving it in the coming 2 years. This could have dramatic consequences on the EU future. Would the USD plunge to 1.65-1.75 USD to 1 Euro, the shock on the German economy would be such that a joint position with France and Italy on revamping the ECB charter would become a possibility. This would however imply a serious political conflict inside the Euro-Zone, which would emerge as a kind of German-French condominium. This conflict impact on the EU would probably lead to a demise of the current "unified" European structure and its replacement by a concentric circles one. This change would be less dramatic than the one a demise of the Euro-Zone would imply, but would still be quite traumatic. To some extent European economies are facing a Hobson's choice.

As any large-scale economic crisis this ones highlights gaps in our understanding of economic events. Even more than during the 1997-1999 crisis mainstream economics, both at theoretical and applied levels, are to be challenged to work out stable and effective solutions. The lag accumulated till two decades between theoretical progresses in microeconomics and macroeconomic policies is reaching a point where some paradigm shifts are plainly necessary. The crisis duration is also to be determined by the speed of these paradigm shifts and the willingness of public authorities to re-write their agendas and priorities to make them consistent with these paradigm shifts. The longer public authorities, at the national level as well as at the international level, will stay committed to older mainstream economics, the longer the crisis and the highest the probability some catastrophic event could take place.
Exiting the crisis could imply dismantling part of the institutional framework we inherited from "Conservative Revolution".