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Globalization and Inflation

Jean-Paul Fitoussi

Summary

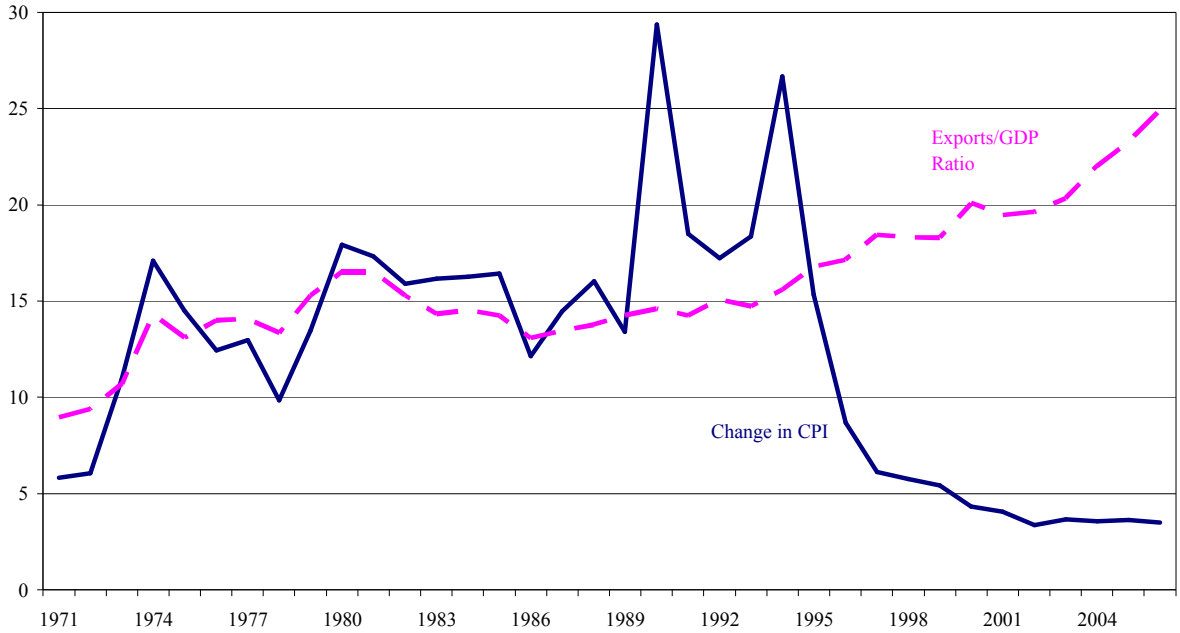
The issue of whether globalization has yielded structural changes in the process of inflation is crucial for the definition of the role of monetary policy, and for an assessment of the strategies followed by central banks around the world.

This briefing paper will first frame the argument by showing a series of stylized facts on inflation. In the last 15 years or so, disinflation and the increase of world trade seem to have gone hand in hand. This phenomenon does not seem to have been fuelled by lower mark up but by a decrease in the wage/productivity ratio. The briefing paper then tries to identify the channels through which increased openness to trade affects inflation: cheap imports, increased competition in the labour market, the disappearance of bottlenecks, the selection process of firms etc. The effect of globalization on (dis)inflation seems to be robust, but the question of its duration remains: is it transitory or permanent? If the transition period is rather long, which is likely, then monetary policy could more than ever participate to the others general goals of economic policy, at least in industrialized countries.

1. Inflation and Trade

The first fact we can observe is that the past three decades were characterized both by an upward trend in world trade (measured as exports over GDP) and a downward trend in inflation (measured as yearly change in CPI), if we disregard the first half of the nineties. The following figure shows these trends quite well.

1. Inflation and Trade - World



Source: Datastream

The figure also shows that both trends accelerated since 1995.

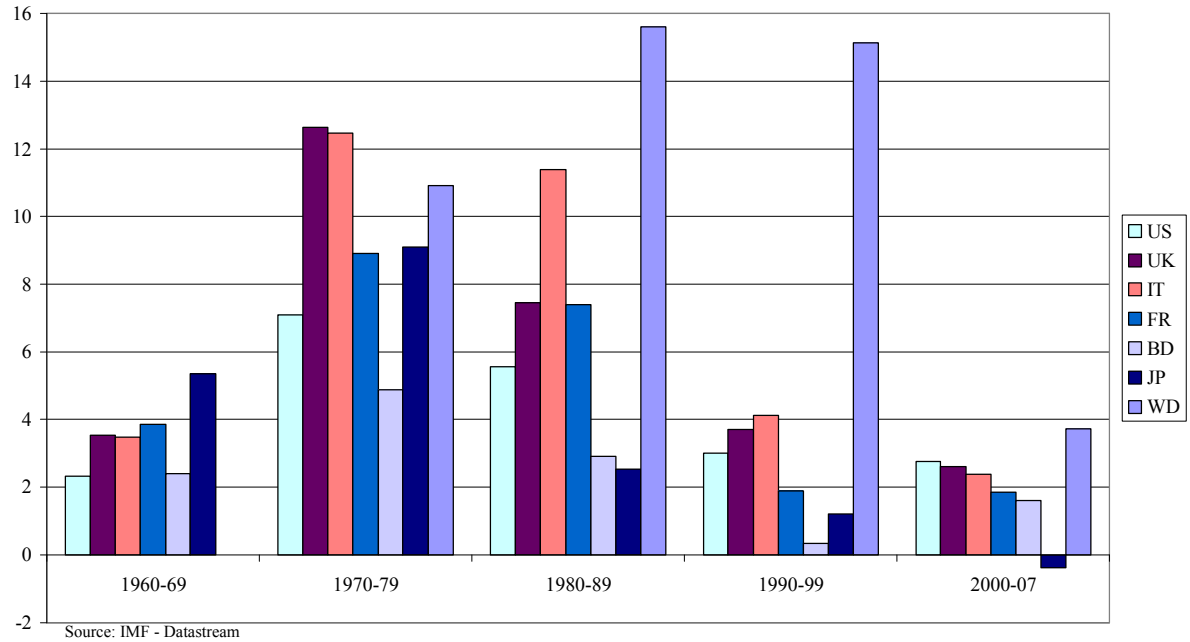
If we look at a number of selected developed countries (figure 2), we can observe that the sharp decrease in inflation began even earlier, while the rest of the world experienced very high inflation rates until the mid 1990s (the average inflation rate of developing countries computed from the IMF's *International Financial Statistics*, is on average 36% between 1980 and 2000)

The increase of world trade is of course not necessarily the only factor explaining the dramatic decrease in inflation. In a speech in 2004[1], former Fed Chairman Alan Greenspan argued that innovation and productivity increases were among the factors explaining the trend

[1] "Globalization and innovation", Remarks by Chairman Alan Greenspan at the Conference on Bank Structure and Competition, sponsored by the Federal Reserve Bank of Chicago, Chicago, Illinois, May 6, 2004

in inflation. Nevertheless, he argued in the same speech that "*Because of a lowering of trade barriers, deregulation, and increased innovation, cross-border trade in recent decades has been expanding at a far faster pace than GDP. As a result, domestic economies are increasingly exposed to the rigors of international competition and comparative advantage. In the process, lower prices for some goods and services produced by our trading partners have competitively suppressed domestic price pressures.*" Similarly, a recent study from the IMF[2] attributed to trade a significant portion of the observed reduction in prices, while at the same time warning about the possibility that this effect could only be transitory.

2. Inflation - Decade Averages



2. How can globalization affect trade?

A number of channels through which globalization and trade affect inflation have been highlighted in the recent debate:

1. The more straightforward is the direct effect of cheap imports, which reduces the overall price level in industrialized countries. This effect is larger for countries that have a higher share of imports in domestic consumption[3].

[2] IMF "How Has Globalization Affected Inflation?", Chapter III of *World Economic Outlook*, April 2006
[3] The ECB monthly bulletin of August 2006 provides an estimate of this direct effect of the European Union

2. Related to the former, there is the substitution effect of cheaper imports for domestic goods. According to the ECB monthly bulletin, of August 2006, China and new member states have seen their exports to old member countries of the EU double from 1995 to 2004.
3. Trade openness has also an effect on domestic prices, through the downward pressure that it exerts on wages of sectors more exposed to foreign competition. The threat of delocalization and of outsourcing has been used to moderate wage growth and to keep labour costs low.
4. A global economy also tends to reduce bottlenecks and capacity constraints, thus reducing the sensitivity of inflation to domestic supply problems. Supply and demand are increasingly determined on a global scale.
5. Finally, increased competition implies a process of selection in the domestic market, with less efficient firms driven out of business. This implies an increase in overall productivity and a decrease of prices.

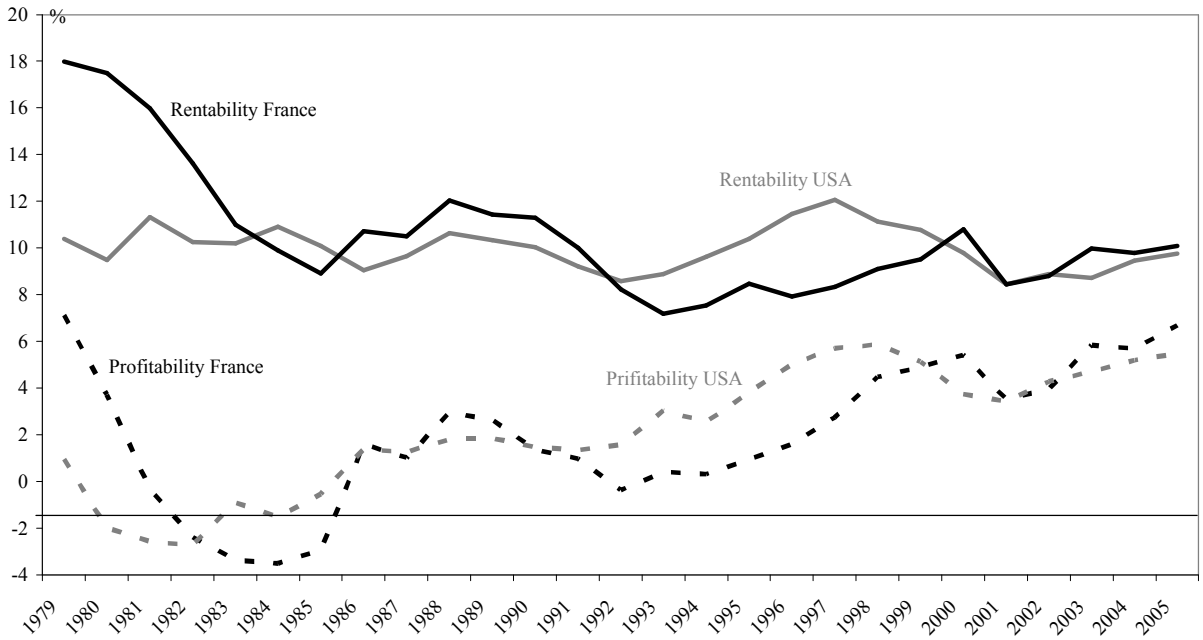
   To these factors, often mentioned in the literature, I believe it is worth adding what I call the *contestability effect*:
6. Even when the share of imports is low, and hence the direct effect plays a limited role in affecting inflation, the simple threat coming from potential competitors will force domestic producers to keep prices low. The notion of market contestability, introduced by Will Baumol in oligopoly theory, fully applies to international trade, and explains why the reduction of inflation also appeared in relatively closed economies (like the US for example).

3. The Burden of International Competition

Nevertheless, if we attribute to trade globalization the positive effect on inflation, we are immediately faced to a contradiction. Contestability and increased international competition should have an impact on mark-ups as well as on prices, and we should have observed a tendency to compression of profit margins. Now, as figure 3 shows for the case of France and the USA (the only countries for which reliable data on the capital stock were available), this is not the case. For both countries profit rates (computed as the ratio of value added net of wages, revenue taxes and consumption of fixed capital over the stock of capital) have shown fluctuations that are related with the business cycle, but no clear trend. If anything, we observe a tendency to increase since the early 1990s. Even profitability, obtained by adding capital revaluation to profits, shows no trend.

The explanation to this contradiction lies in the financial globalization that has accompanied the trade globalization described above. Capital -- the most mobile production factor -- has moved or threatened to move where it was more profitable. The worldwide surge of FDIs and outsourcing responds, among other things, to this objective. This has weakened the bargaining power of the less mobile factor, labour. In fact, since the early 1980s, the increase in productivity has not been passed to the wages. Figure 4, where I plot an index of productivity (GDP/employment) divided by the real hourly wages in the manufacturing sector (broadly speaking, the inverse of the wage share), shows that the trend has been upwards in the past three decades.

3. Capital Rentability and Profitability



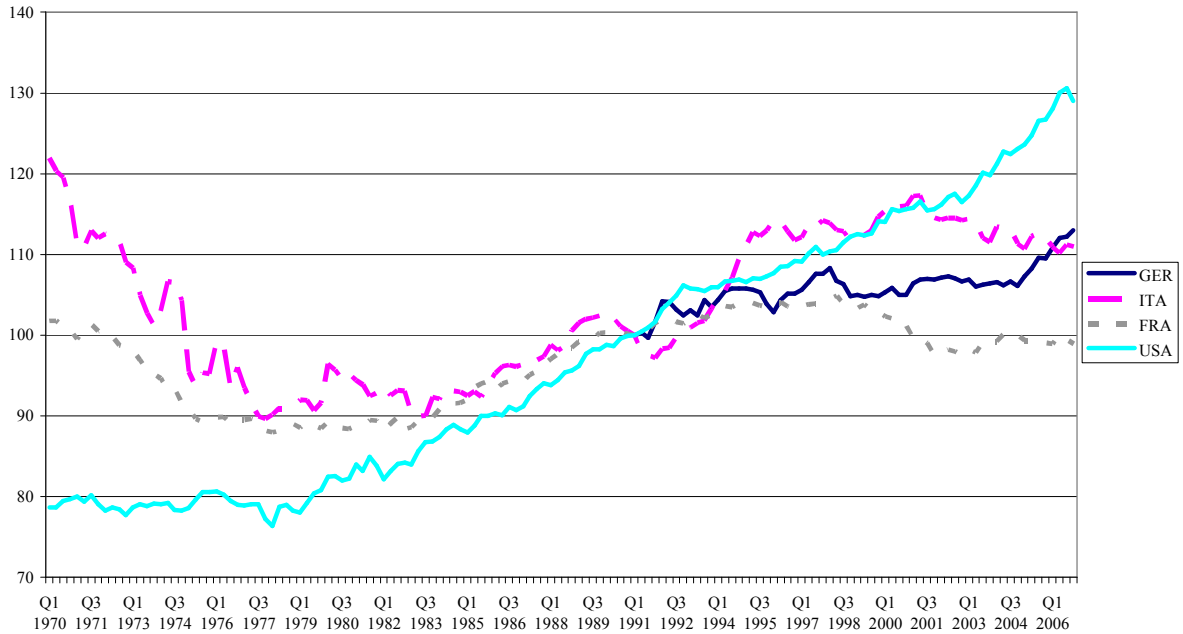
Source INSEE and BEA. Author's calculations. Rentability includes capital revaluation

Most of the pressure coming from competition by the globalized economy has been put on labour, thus allowing prices to decrease without significant reductions in profit rates that on the contrary show no downward trend.

4. Inflation, Globalization and Monetary Policy

In a world where inflation seems to be less and less a domestic phenomenon, researchers have been asking whether this changes the framework for monetary policy. The first obvious consequence of the established link between globalization and (dis)inflation is the necessity to frame the debate on inflation targeting and monetary policy effectiveness in new terms: if the generalized disinflationary trend that we observed in the past quarter of a century has mainly external reasons, domestic policies, and notably inflation targeting, do not have the significant impact which is generally agreed upon. An indirect proof of this argument comes from the United States, where the Fed had actively pursued a double objective of growth and inflation; in spite of this strategy, the long run inflation level in the US decreased as much as other comparable countries where central banks followed strict inflation targets. It is also worth noticing that, at the same time, the growth performance was much more satisfactory than in other areas as for example the EMU.

4. Productivity/Real Wages



Source: IMF - OECD - Datastream. Calculations of the author (1991 = 100)

Nevertheless, the debate is not settled yet, and it is probably too soon to be able to say a final word on the issue. The research agenda boils down to answering the following question: Are the effect of globalization on inflation formation permanent or not? Answering this question in one sense or in another will entail important consequences on the design of monetary policy.

Two recent articles may be taken as representative of the different positions in the field. The first is an article by Lawrence Ball[4] arguing that most of the effects of globalization on inflation are temporary, in the sense that they are linked to the current transition towards a more integrated world. Once the transition accomplished, concludes Ball, inflation will become a domestic monetary phenomenon again, and central banks will have to go back to business as usual and keep targeting inflation.

Opposed to this view is another, exemplified by an essay of Kenneth Rogoff[5], who argues that Globalization has modified so deeply the economic environment that inflationary pressures are today permanently lower than in the past (notably through the increased competition that makes prices and wages more flexible).

While it is too soon for fully fledged empirical analyses to shed some light on the question, a number of recent papers begin giving some partial answers. A first result, that goes in Ball's sense is that the direct effect of trade openness (through imports, see item 1 above) is significant, sizeable, but temporary[6]. On the other hand, nevertheless, a number of papers[7] show through sector level analyses that the effect of increased competition on productivity, prices and wages produces a permanent downward pressure on prices.

Developed, emerging and developing economies are undergoing through a process of deep structural change that is evident even to the casual observer. The balance of domestic and international factors in determining inflation seems to be irrevocably shifting towards the latter, thus challenging Ball's thesis. But then, in this new environment in which inflation partially escapes its control, monetary policy acquires room of manoeuvre that can be used to pursue other objectives, notably economic growth.

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[4] Ball, L. M. (2006). "Has Globalization Changed Inflation?" *NBER Working Paper*, 12687.

[5] Rogoff, K (2004), "Globalization and Global Disinflation", *Economic Review,* Federal Reserve Bank of Kansas City.

[6] See for example Ihrig, Kamin, Linder and Marquez (2007), "Some Simple Tests of Globalization and Inflation Hypothesis", *Board of Governors of the Federal Reserve System*

[7] An example is Chen, Imbs and Scott, (2004), "Competition, Globalization and the Decline of Inflation" *CEPR Discussion paper* no 4695.