

# The Pre-Modern European Economic Model, 1000-1800

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*1 March 2008; Revised*

*Categories: Early Modern: Political History, Medieval Europe: Political History*

## **Introduction**

Today, the whole world seems dependent on growth, but some historians have argued that in the long run there has been no such thing as growth in the pre-industrial economy. Le Roy Ladurie has coined the principle of “immobile history” to describe the lack of long-term growth in the countryside of South West France which he was studying [Van Zanden].

But more recent studies have led historians to believe that the European output per worker may have grown by 0.1 to 0.2% during the 1000-1800 period, with peaks around 0.6% in the most advanced areas such as sixteenth-century Holland. That is not much by modern standard but that's still anywhere between a 120 and 400% increase. Where did this growth come from?

## **The causes of growth**

This paper will analyse the causes of growth in a pre-modern economy focusing on Europe between the 11th and the 18th century. The usual suspects seem to have had only a limited impact.

Technological innovation was too sparse to sustain even such a sluggish rate of growth. Besides, it appears that periods of intense technological innovation were caused by economic growth so they could not trigger it.

Another common cause of growth is capital accumulation. In other words, one saves money and later invests it causing productivity to rise. But, once more, this is of little use at a time with virtually no large industrial plants. Most of a country's economy depended on the agriculture, that is labour and land. Using bigger fields or working longer may have improved productivity up to a point but soon it would have meet a ceiling: a human being cannot work more than 12 hours in the fields.

So, what caused growth in the pre-modern era? The answer may have been already given by the father of modern economics, Adam Smith. In his view, the best way to improve productivity was division of labour. The system is simple: one is more productive if one concentrates on one thing than if one tries to do several. One can acquire whatever one does not produce from others who concentrate on these said things.

## **From subsistence to commerce**

Division of labour always existed in agrarian economies, it followed gender lines. Women would stay around the house to raise the children, cook, weave or take care of the garden while, men would work in the fields. This often led to self-contained farms or autarkic villages: almost everything which was consumed was produced on the spot.

Now imagine that several of these autarkic local economies are suddenly linked with one another. It is likely that each one of them is better at producing some kind of foodstuff, so if each one concentrates on something it is good at, as predicted by Adam Smith, the total output of the regional economy will increase. This has often been observed when isolated location are put into contact with a larger market, for instance, Madeira soon after its conquest by the Portuguese became specialised in wine production.

The degree of division of labour is proportional with the size of the market. For example, if a goldsmith is specialized in the making of expensive jewellery and he needs to sell at least 10 pieces a month to survive but only 0.01% of the population is interested by his stuff every month, it will be impossible for him to open a shop wherever the population is below 100,000 inhabitants. Thus, the larger the market, the deeper the division of labour and also the higher the productivity.

Division of labour implies commercialisation of one's surplus, this may not come totally naturally to peasants used to only work to sustain their subsistence. Moreover establishing the original linkage often requires the type of investment a rural community cannot afford. That is why the state (be it a local lord or a national government) often provided the initial incentive. For fiscal reasons, states needed the peasants to produce a surplus and it needed the tax collector to access the various local economies, so states financed or at least supported the construction of roads, canals and the creation of markets and fairs which in turn increased the size of the local market.

Local autarkic economies used little money, barter was more often used, and anyway there tended to be too few commercial exchanges for hoarding to be interesting. But as soon as the market kicked in, money became more useful (if anything, to pay your taxes). Hence it is not a surprise to see quickly developing economies looking for as much metal as possible, as well as new forms of payment (e.g. bills of exchange). The lack of money made created a strong inflation such as the one suffered from 1550 to 1650 in Northern Europe during the phase of fast development of the English and Dutch economies.

### **The rise of cities**

Pre-modern economic development always went along a strong movement of urbanisation; the case of Italy is certainly the most remarkable. During the late medieval period an important number of cities were developed on the peninsula: Amalfi, Venice, Rome, Genoa, Naples, Florence, Milan. The markets and fairs implied by the commercialisation caused by division of labour created these major urban centres that provided a convenient site and protection for the merchants.

Urbanisation also created a feed back process in the sense that these large markets where wealthy merchants were located attracted artisans and fueled a second wave of specialisation and division of labour. Craftsmen are attracted by one another, they can share the costs of production, provide protection to each other via the creation of guilds, they also can complement each other (the carpenter will be where the mason is). As the urban population increased, the possibilities for division of labour increased as well. The concentration of skilled and specialised workers in towns is revealed by the fact that in thirteenth-century Colchester, England, 65% of the population had a surname linked to their occupation (e.g. Draper, Smith), while this proportion was only 35% in the neighbouring countryside [Britnell].

### **The virtuous circle**

Division of labour was not the only cause of growth in the pre-modern era, it created other forces that relayed it as engines of the economic progress. The most obvious of these spill-overs is certainly innovation. When a worker specialises in a trade, he ends up by knowing it through and through and he is in the position to improve the production process. For instance, at the arsenal of Venice, for a carpenter to become a master, he had to improve one thing in the design of the galley [Davis].

The benefits coming from the extra output created by the division of labour could be reinvested and start a new engine for growth. In the countryside for instance it meant buying a horse to plough which in turn would provide manure, etc.

Putting various local economies in contact with one another had also very positive consequences. Mostly, it allowed knowledge to flow, workers to find better positions and capitalists to invest in the

most promising enterprises. The flow of knowledge was particularly important as it avoided a region to create a monopoly, Venice for instance maintained its glass-making techniques a secret for hundreds of years but ultimately could not prevent its craftsmen from being lured to France or the Netherlands which spread the knowledge and allowed concurrence and innovation.

The last important consequence is price convergence. Before linkage, in case of bad harvest, a local economy could starve while its neighbour would have more than enough grain. After linkage, as merchants bring their stuff wherever the prices are higher, prices would start following similar patterns (when it was expensive here, it was expensive there too, it is called co-variance) and gradually tend to become similar in both places (it is called convergence). As a result, prices fluctuated less, famines were less likely and producers could always get a better price for their stuff.

### **Barriers and limits**

But the virtuous cycle described above seldom worked so well. There were numerous bottlenecks that prevented division of labour to develop. One of the most obvious was the lack of security; a subsistence crisis was never far, a very specialised worker put himself at risk, if for any reason his clients could not buy his work any more, he would find himself locked in his niche and starve. As a result, specialists were often multi-tasking. In medieval Colchester, most of the population had a piece of land along their more urban occupations.

Barriers to trade were also problematic. Trade is necessary to increase the market size, but everything from frontiers, to bandits seems to get together to prevent merchants from traveling. Along with other bottlenecks, transportation-related problem could be overcome through the creation of specialised institutions. Trading corporations such as the English East India Company, were set up to protect the merchants from pirates, diminish the costs of shipping, negotiate with foreign rulers, etc.

But even the cleverest institutions could not replace a perfectly working market. European economies rarely managed to expand above the regional level. Most of the stuff produced was consumed in a radius of 100km, there was no integrated market at the level of the continent, even by the end of the 18th century less than 4% of the average European gross national product came from international trade [O'Brien]. Some produces were indeed carried, say, from Poland to Italy, but these were rare cases and their overall impact was limited.

Division of labour only functions with linkages working extremely well, which was obviously not the case before the Industrial Revolution. Thus advantages such as price co-variance and convergence were limited in scope and most of the exchange remained at the regional level.

Sooner or later, pre-modern economies reached their limit, weakened and collapsed. The Malthusian trap is the most famous of these vicious mechanisms. The increased agricultural productivity would allow population to grow, but at one point a production setback would create food shortage, weaken people's bodies and many of them would die due to malnutrition. This would lead markets to retract and most of the gains from the previous round of division of labour – also called Smithian growth – would be lost.

### **Conclusion**

But, the results are not as bleak as it may seem. True enough, Smithian growth suffered many setbacks from 1000 to 1800. As late as the 1770s the French minister Turgot was still trying to put down his country's internal barriers to trade and in eastern and central Europe a second serfdom had been installed, but the long-run results of Smithian growth in Europe were quite positive. The lows were not as low as they used to be (compare the 10th century with the 14th or the 17th) and the peaks were reaching higher than before (compare the 12th century and the 18th). The changes implemented by three centuries of Smithian growth proved robust enough to live through the Black

Death, the European economy did not recede to its quasi-autarkic status of the 9th and 10th centuries.

Nonetheless, the post-Sung Chinese history indicates that the slow incremental process of Smithian growth was not enough for an economy to break into modernity. For that it needed the fast improvements provided by sustained technological innovation, in other words: the Industrial Revolution. But Smithian growth remains a fascinating subject not least because nearly every topics in pre-modern economic history can use it as a base (institutions, trade, agriculture, etc.). I hope soon to develop these in AE's magazine.

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