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## The future of the energy and the next face of America

."...The most momentous change looks likely to be in the re-industrialization of America based on dramatically lower cost feedstock than is available anywhere in the world, with the possible exception of Qatar. The economic consequences from this supply and demand revolution are potentially extraordinary. We estimate that the cumulative impact of new production, reduced consumption and associated activity may increase real GDP by 2.0 to 3.3%, or \$370-\$624 billion (in 2005 \$) respectively. \$274 billion of this comes directly from the output of new hydrocarbon production alone, while the rest is generated by multiplier effects as the surge in economic activity drives higher wealth, spending, consumption and investment effects that ripple through the economy. This potential reindustrialization of the US economy is both profound and timely, occurring as the US struggles to shake off the lingering effects of the 2008 financial crisis."

This long paragraph taken from the presentation of the study "Energy 2020" prepared by Ed Morse and a group of young experts for Citygroup, seems very relevant, not only because of the figures of the future production of oil and gas, which are in fact quite stunning, but because the idea that industry must get back to its historic role of income production. After years and years of hearing that services are the important thing for the economy, there is a well thought out study which presents a blueprint for the "reindustrialization" of America.

North America Total Liquids Supply Projection - MBD

	2011	2015	Δ	2020	Δ
Usa	9.0	11.6	28.8	15.6	34.4
Canada	3.5	4.8	37,1	4.5	-
Mexico	2.9	3.4	17.2	6.7	97.0
Total	15.4	19.8	28.5	26,8	35.3

Source : Edward Morse et al. Energy 2020 (Citygroup)

US Liquids Supply Projections - MBD

	2011	2015	2020	%
Deepwater	1.3	2.0	3.8	24.4
Shale Oil	0.7	2.1	3.0	19.2
Alaska	0.6	0.7	1.1	7.0
Other non	3.2	2.7	2.3	14.7
Convent. Heavy				
OIL	5.8	7.5	10,2	65.3
Nat. Gas Lid	2.3	3.0	3.9	25.0
Total Petroleum	8.1	10.5	14.1	90.3
Biofuel	0.9	1.1	1.5	9.7
Total	9.0	11.6	15.6	100.0

Source: Edward Morse et al. Energy 2020 (Citygroup)

The figures in the two tables are quite astonishing, but Ed Morse's study is perfectly presented, with a good support of tables and maps, and there they must have a much larger technical information than the one that they chose to publish. The great development of the production of natural gas in the USA, which will probably turn it into an exporter, is by now a fact, and crude oil will certainly follow.

The first table we reproduce here is quite surprising. The USA is foreseen to reach by 2020 a level oil production never reached by any producer. Moreover, the table puts together three countries, near to each other, having a sustained oil production .The total for these items is foreseen being in 2020 higher than the present production of all OPEC Countries.

The second table tells us that the great increase in production will be due to new, or almost new, technologies: deepwater, shale oil, permafrost, non conventional heavy crude, and even biofuels that the oil people have spurned until now. The implications of such numbers are many and of a great relevance.

The numbers in that study give a precise answer to those that may still believe that oil reserves are dwindling, and based their conclusion from the exhaustion of the USA natural gas production, exactly the area in which the new technologies have given the most astonishing progress. The disaster of dwindling oil and gas reserves in the world is not near, and the matter basically depends on technology.

Of course, the study does not present its own results it as an easy job, nor does makes it too easy. Such a progress in oil production will certainly require the solution of a lot of problems with the public opinion, and with the electors, and a general drive of the economy back to the traditional energy sources.

The moment in which the study appears is not perhaps a lucky combination. It is a clear proposal to the next President to follow a "reindustrialization" course, to pay attention to the internal market and the internal production capacities, and at the same time a proposal that the USA regain their operational freedom in the world theatre, abandoning the constraints created by the imports of crude oil, and by the need to keep the oil routes open under any condition. Summing the production on the USA, Canada and Mexico seems perhaps to envisage the new direction of a USA foreign policy.

The study is a proposal to give a new life to the industry, which has been generally neglected in a country fascinated by investments abroad, and by finance, and by its immediate consequence, speculation. It is also a proposal to reorient the regulatory effort in a way that would help the development of the internal production. The US has been for a long time dependent from imports of crude oil.

Eisenhower closed the internal market to foreign oil, and that was the last attempt to maintain a self sufficient oil industry. After that, the internal production dwindled, and the US had to resign to the fact that imports would be inevitable. At the start of the Presidency of Busch son the study prepared by the Vice President proposed to resuscitate the notion of self sufficiency, but in vain. The development of technology has changed everything.

Energy is from now onwards an internal problem of the USA, and the country foreign policy may gain a huge area of freedom. It may also reduce the importance of Europe,

which is increasingly seen as inward looking, grappling ineffectively with a protracted financial crisis which has been translated in a serious economic slowdown. However, the most important consequence is probably on the oil industry, and on the position of OPEC.

A USA independent from imports of crude oil means necessarily a reduction of the OPEC control not only because of the reduced demand , but also because the price of crude oil will be dictated from the USA , and not simply as an indicator, a basis for defining a price as it has been in recent years. The most important effect may be, in fact, a return of the USA to industry and physical production. The idea that production is necessarily international, that exporting capital is the real way to make it pay, that production in the USA is not the best way to make money will be receding, and perhaps the problem of unemployment will be solved by the return to material production.