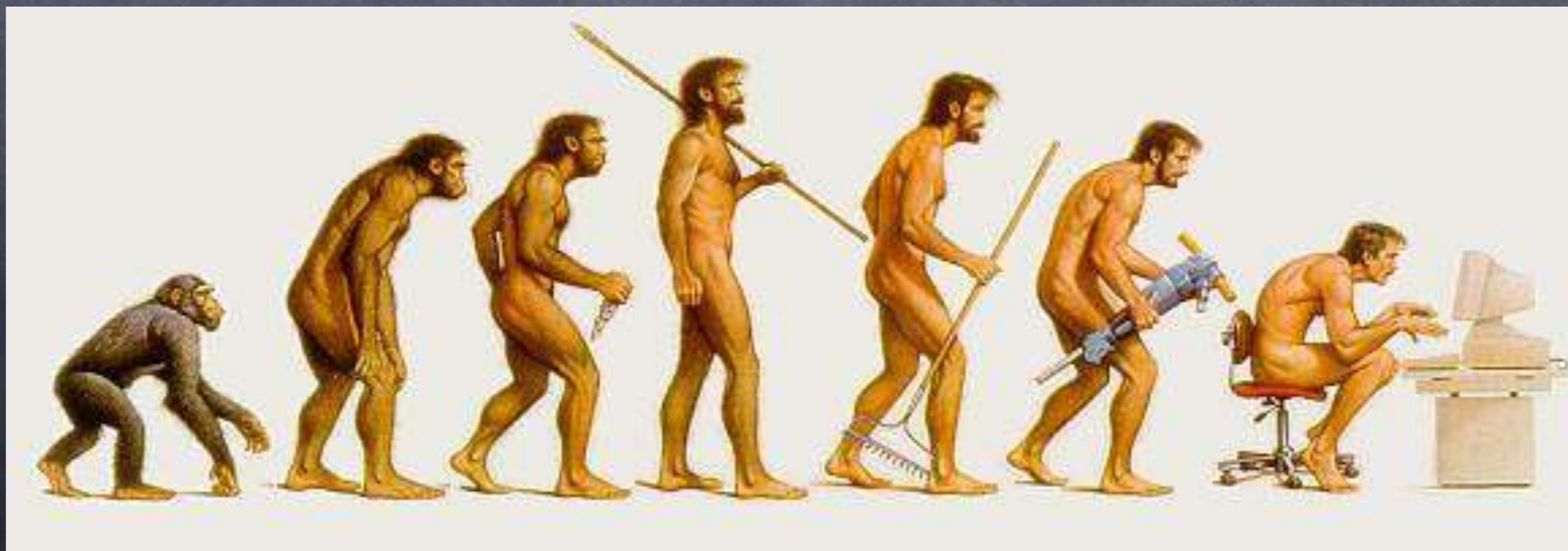


Kolektívny osud druhu *Homo sapiens*: Kto sme a kam kráčame?

Dr. Alexander Ač

Centrum výskumu globálnej zmeny AV ČR, v.v.i.



„Prečo sú na svete vojny?“

Home



Zero
Hedge

On a long enough timeline
the survival rate for
everyone drops to zero.

Is War Now "Inevitable"



Submitted by Tyler Durden on 09/12/2013 17:00 -0400

[Bank of England](#) [Ben Bernanke](#) [Ben Bernanke](#) [BOE](#) [Central Banks](#) [Deficit Spending](#)
[Domestic Product](#) [Jim Reid](#) [Kyle Bass](#) [Kyle Bass](#) [Lehman](#) [Monetary Policy](#) [Nominal](#)
[recovery](#) [Reserve Currency](#) [Unemployment](#)

Vnímáme svět v kontexte limitů?

- *Klimatická změna*
- *Energetické zdroje (ropa)*
- *Finanční zdroje (dlh)*

HUMANS AND ENERGY - A TIMELINE

FORMATION OF MODERN ENERGY SUPPLY (FOSSIL FUELS)



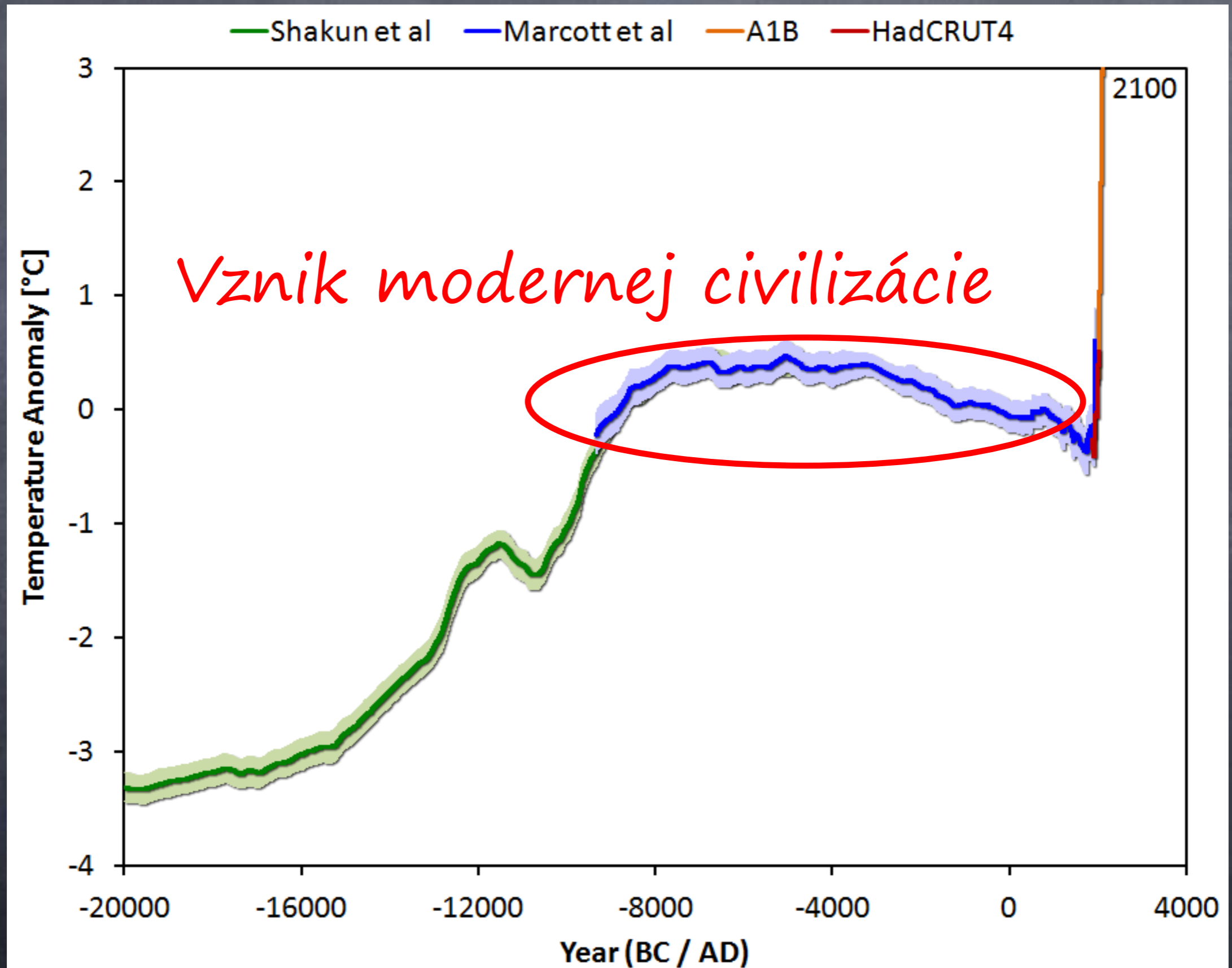
FORMATION OF MODERN ENERGY DEMAND (HUMAN BRAIN)



INTERSECTION OF ENERGY SUPPLY AND DEMAND



Klimatická zmena včera dnes a zajtra

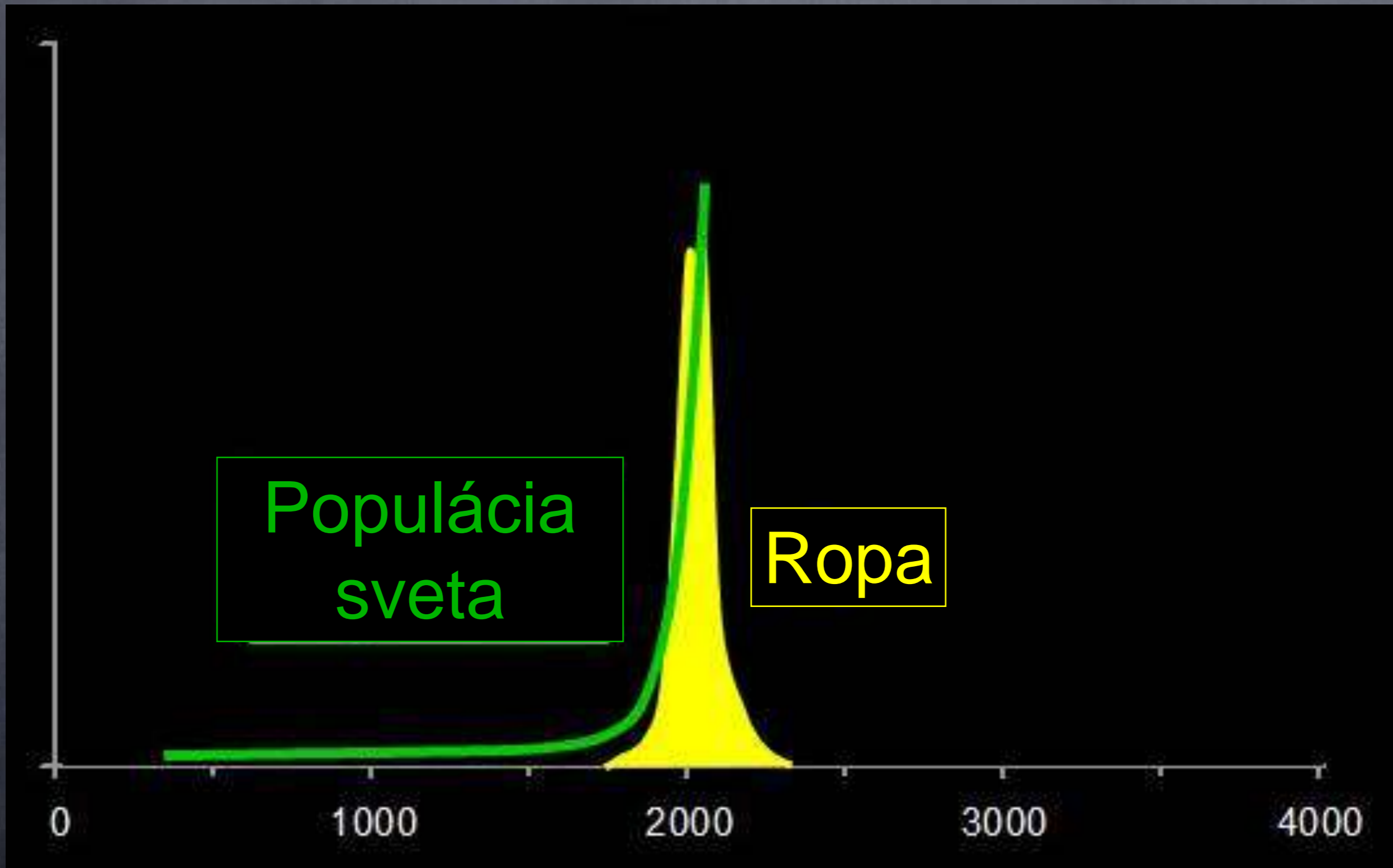


Svet súčasnosti a budúcnosti je/bude svetom *nestabilného počasia*

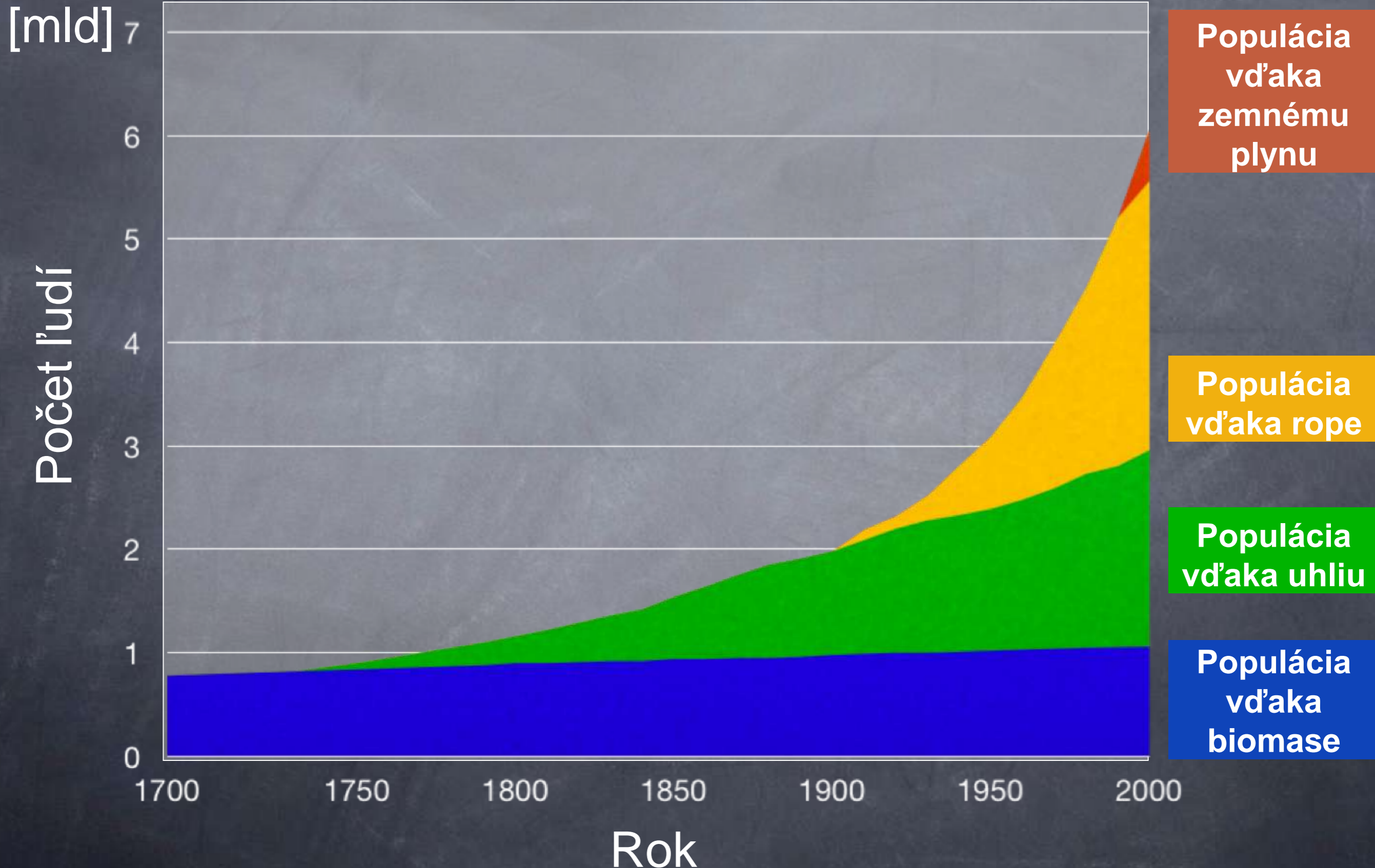
YEAR-TO-DATE RAINFALL TOTALS Boulder



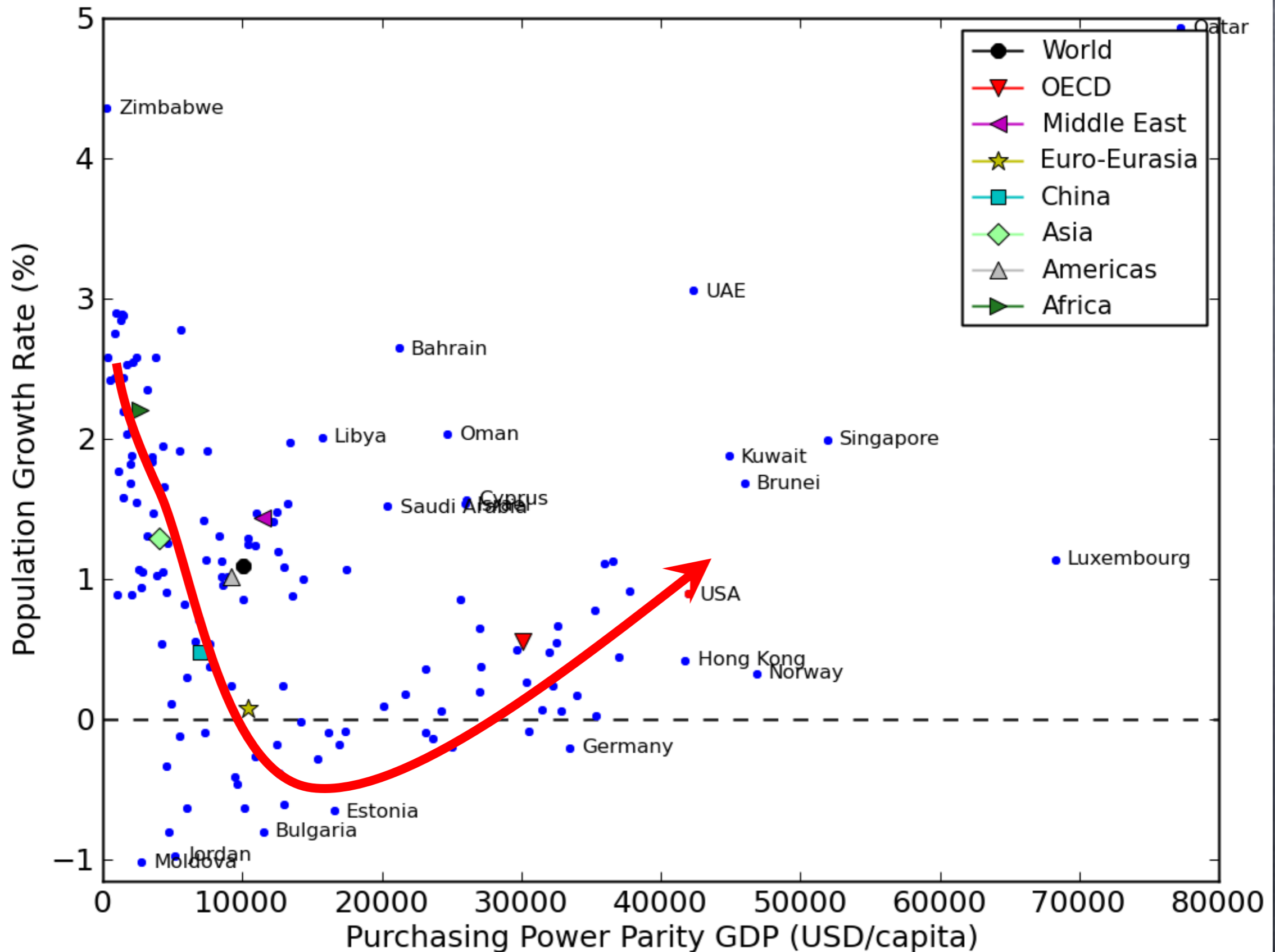
Stručná história ľudstva a ropy



Fosílné palivá umožnili rast populácie na svete




Skutočná populačná stopa



„The list of reasons for why my wife and **I decided not to have kids** is long“ – Tom Murphy

Koľko tekutých palív spotrebujeme?

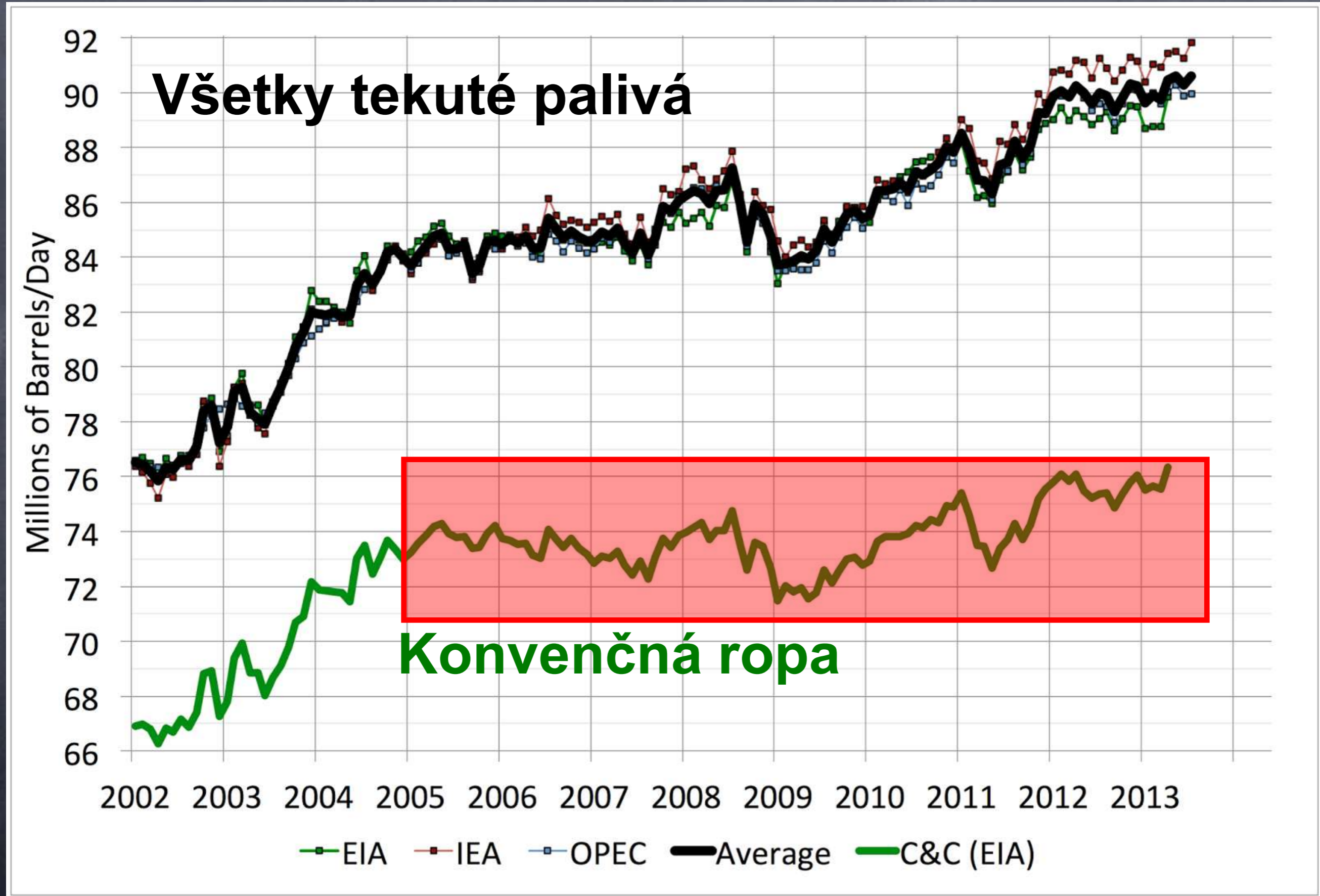


30 miliárd barelov za rok
85 miliónov barelov za deň
1000 barelov za sekundu
1 barel = 20 000 hodín
ľudskej práce

“ ... the world can, in effect, get along without natural resources ... at some finite cost, production can be freed of dependence on exhaustible resources altogether....

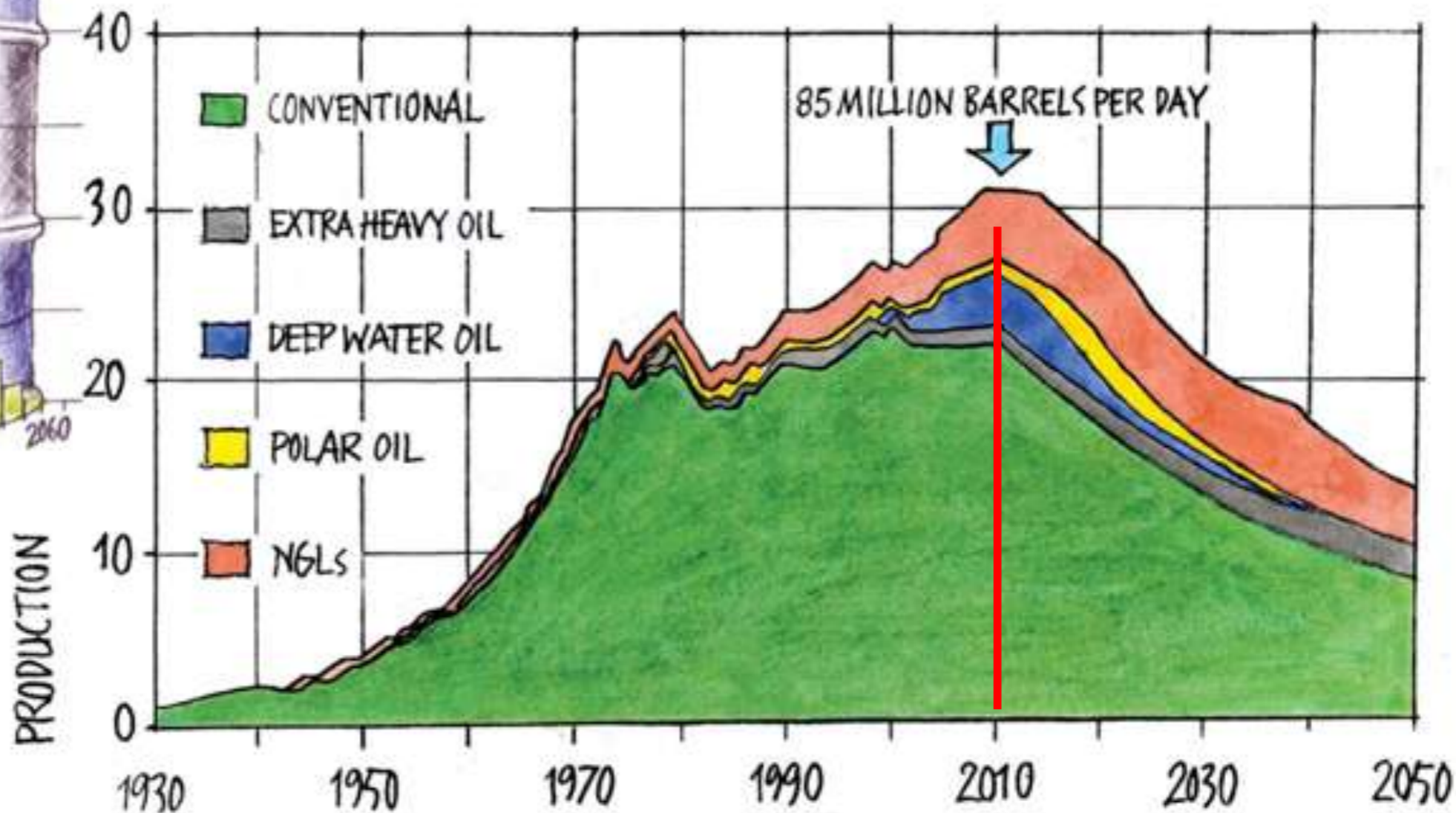
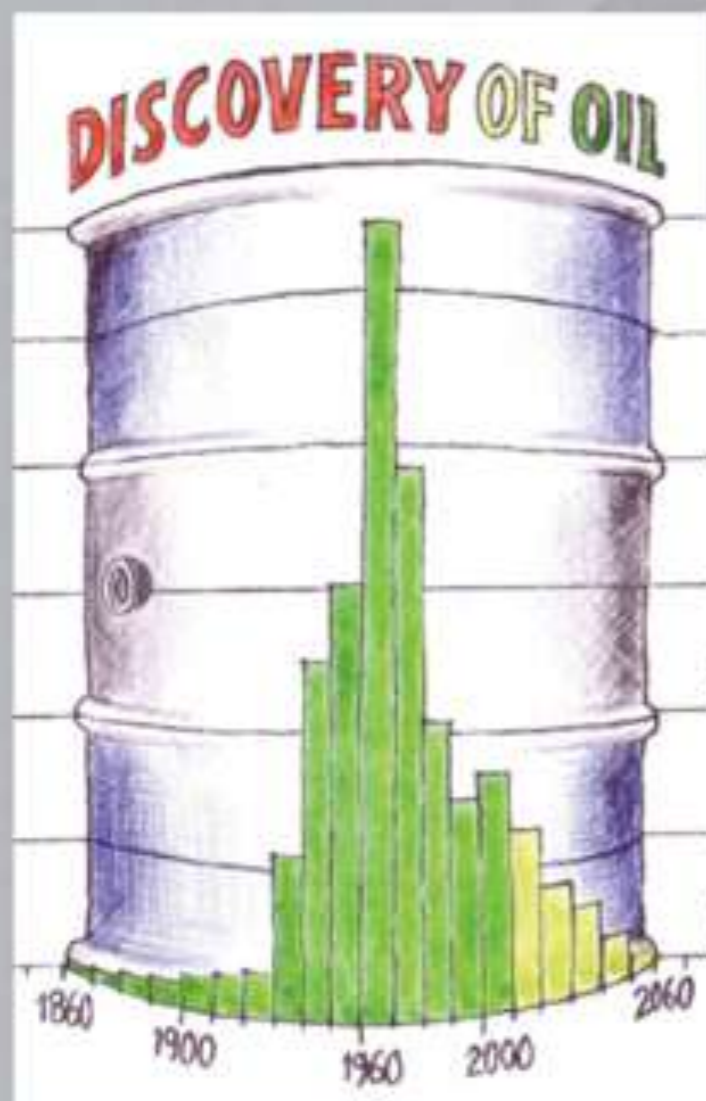
Nobel Laureate Robert Solow

Limity rastu – ropný zlom („optimisti“ vs. pesimisti)



„Pesimistické“ predpovede ťažby ropy

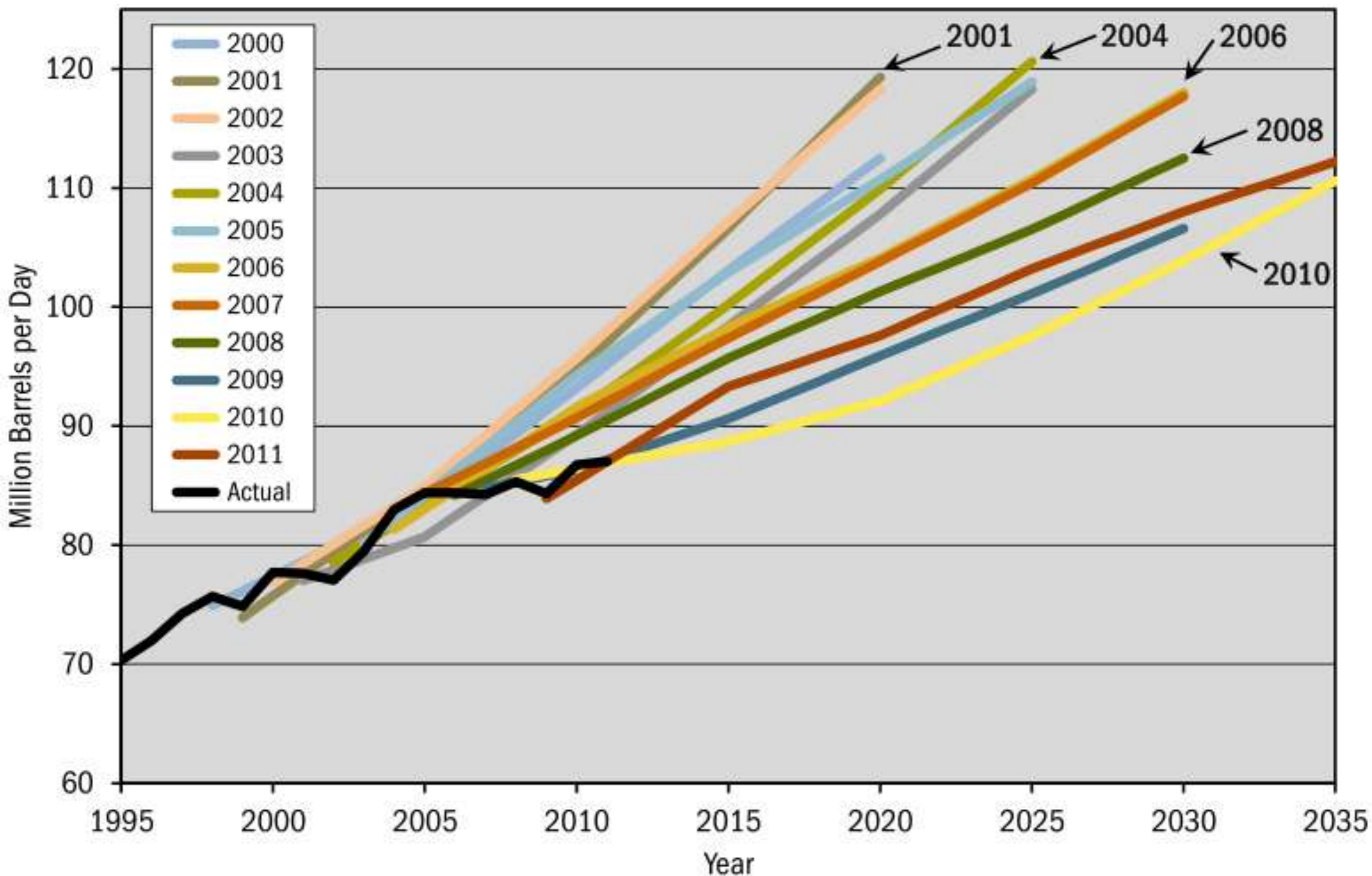
Peak Oil



10.4



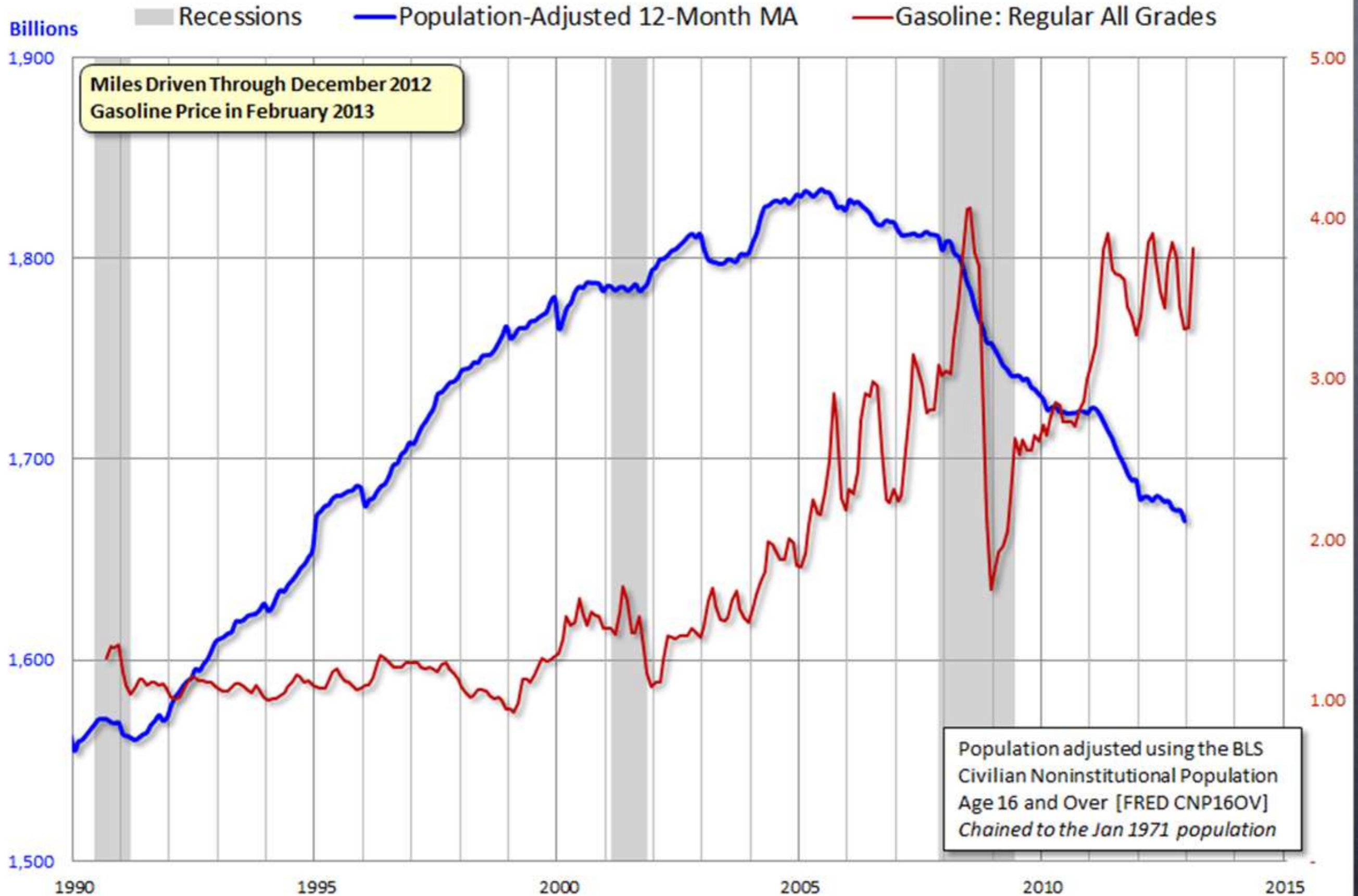
„Optimistické“ predpovede ťažby ropy



Koniec ropného zlomu?

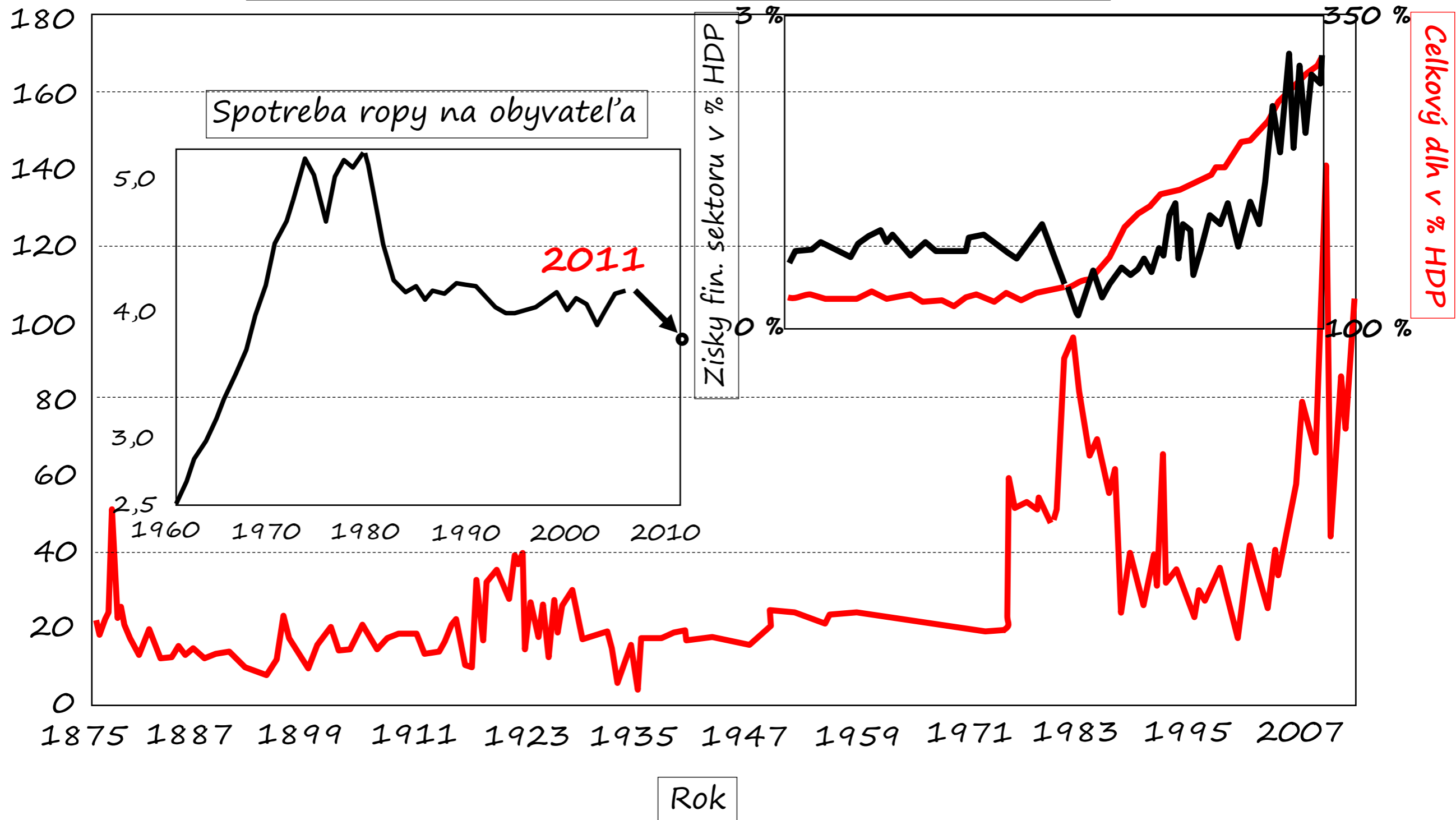
Estimated Vehicle Miles Driven and Gasoline Prices

dshort.com
February 2013



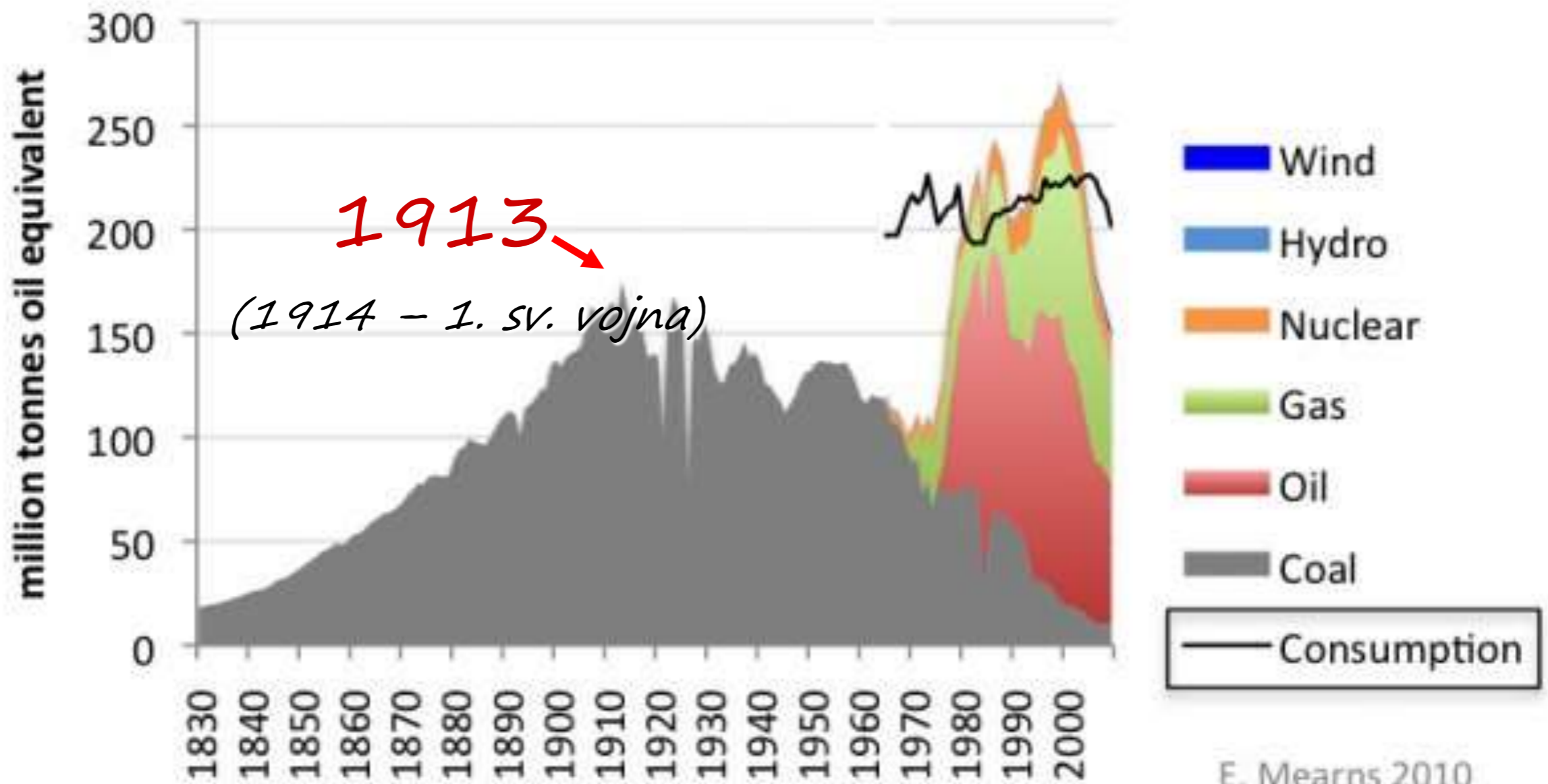
Historický vývoj ceny ropy

Cena ropy WTI v dolárech z roku 2010



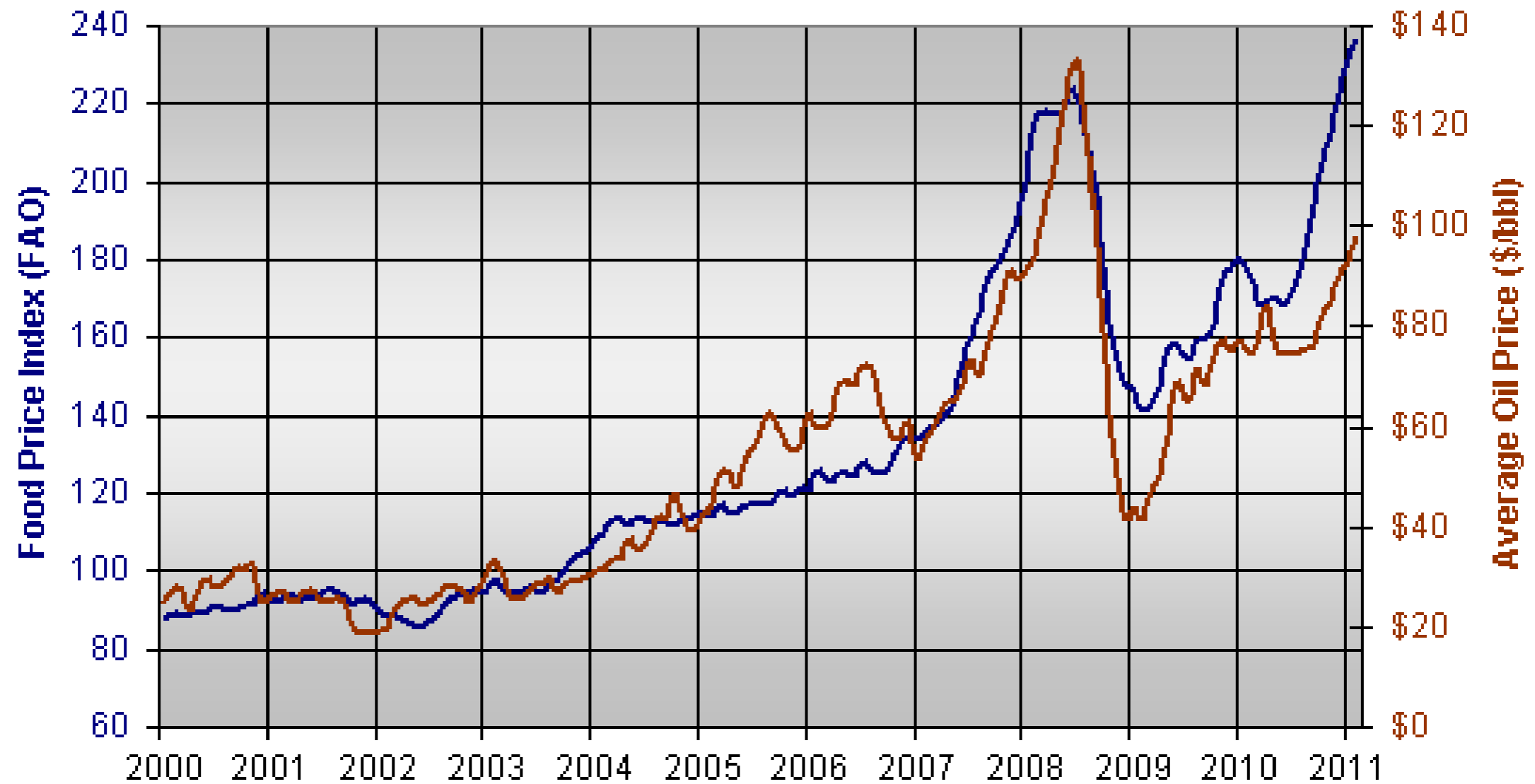
Energetická história Veľkej Británie

UK primary energy production



Ceny potravin a potravinové nepokoje

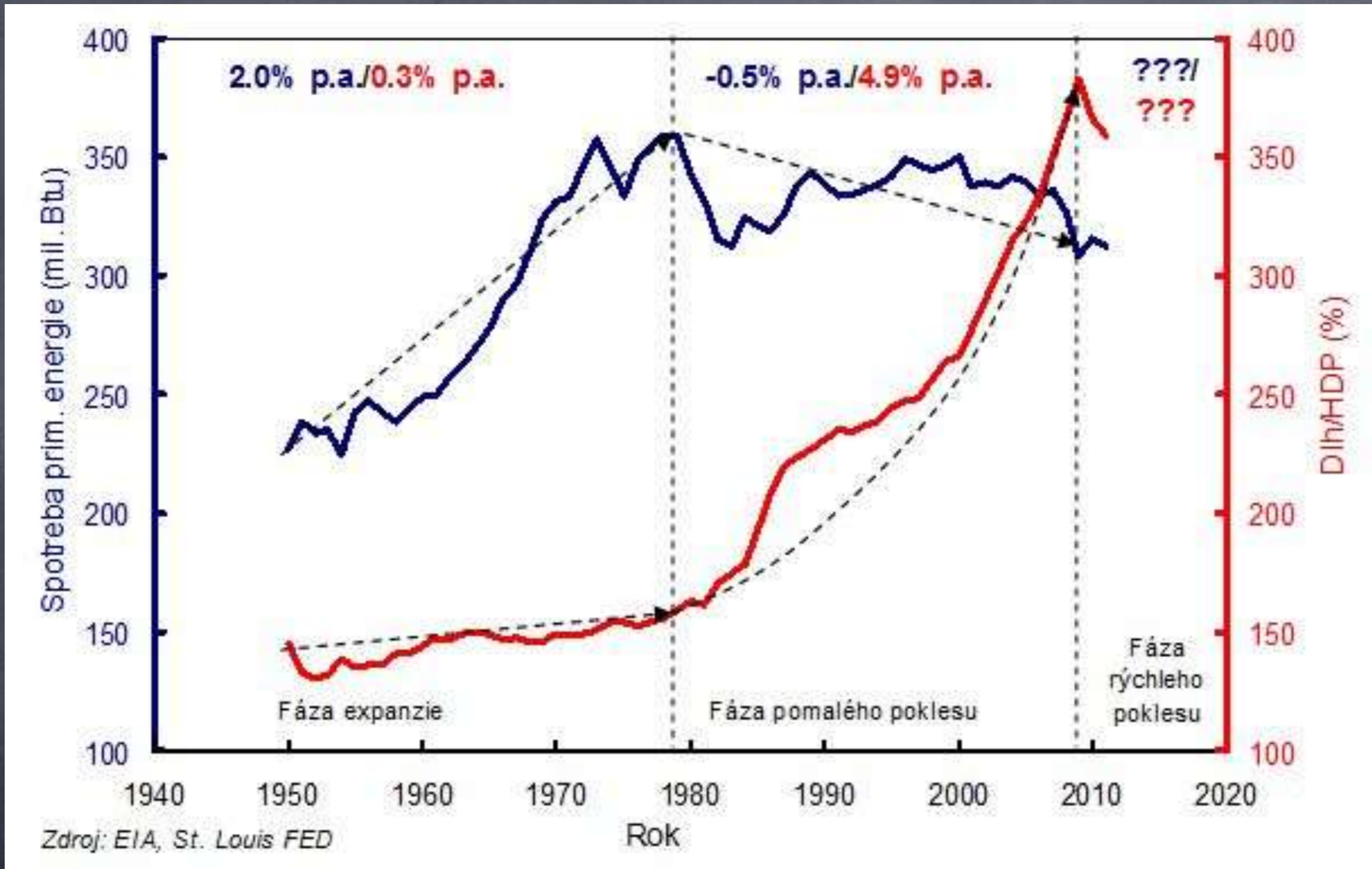
World Food and Oil Prices 2000 to 2011



Correlation: 93.6%

— Food Price Index — Average Oil Price

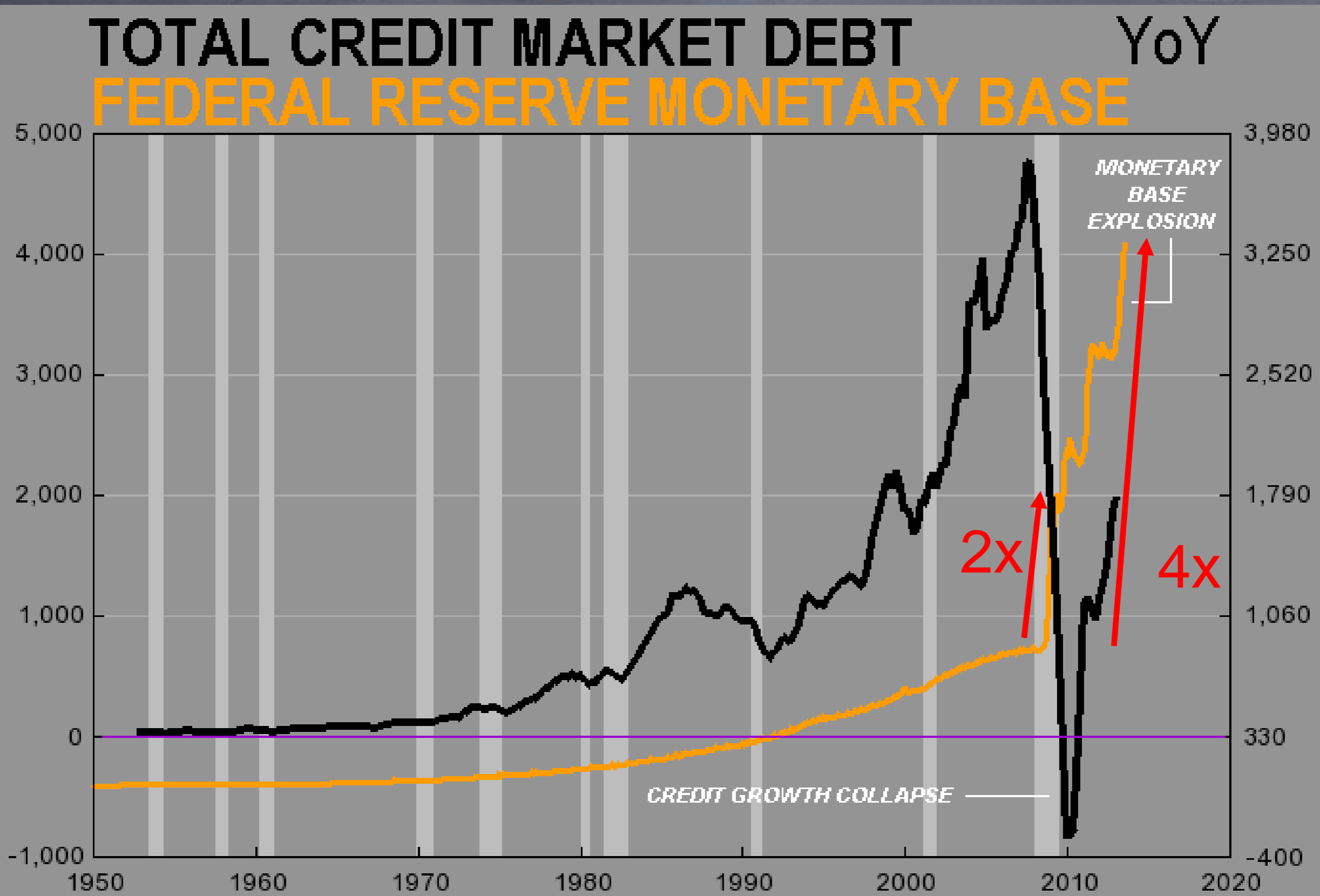
Limity financií – „peak debt“



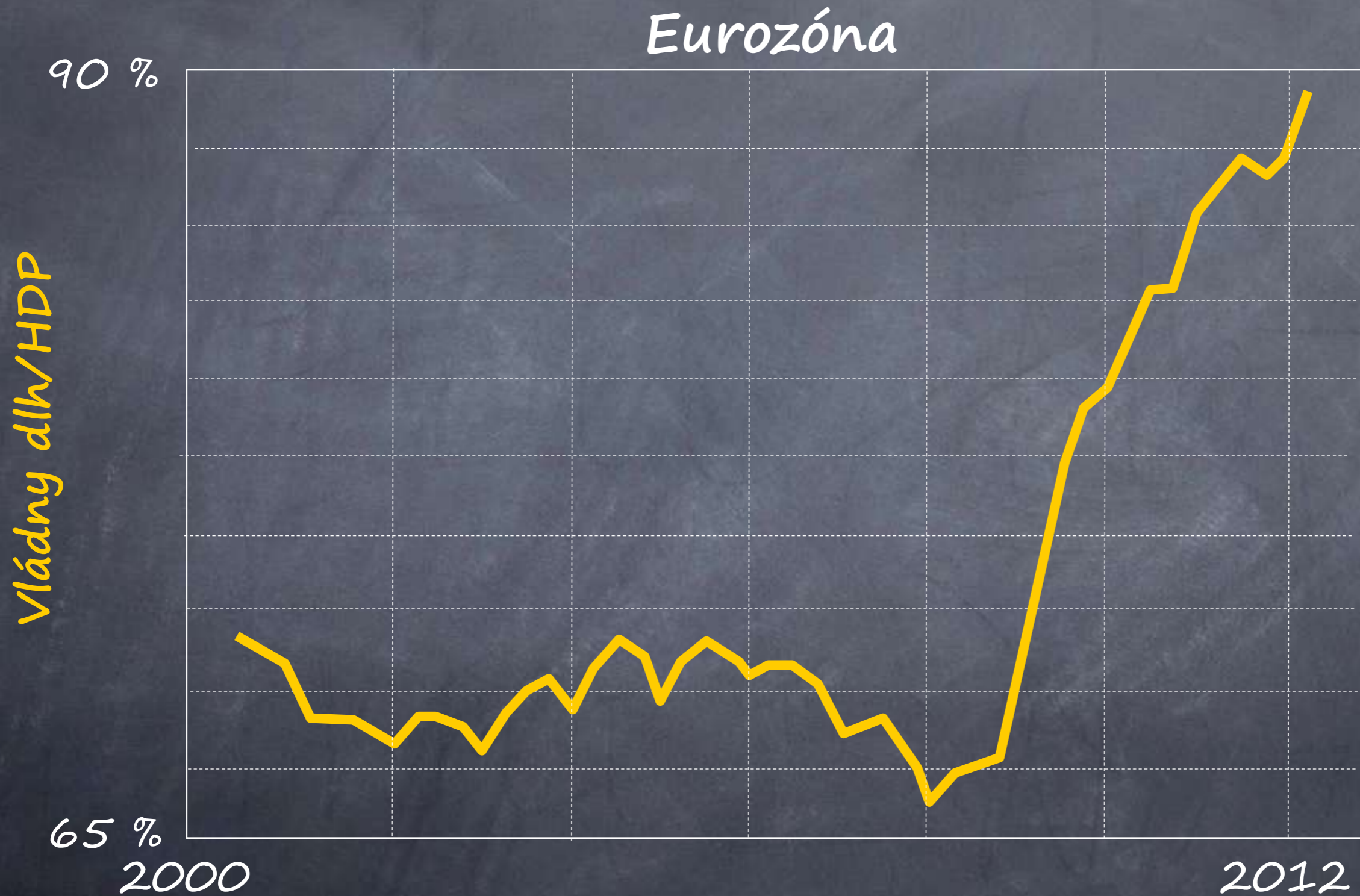
Peniaze = nárok na určité množství energie

Dlh = nárok na rostoucí množství energie v budoucnost

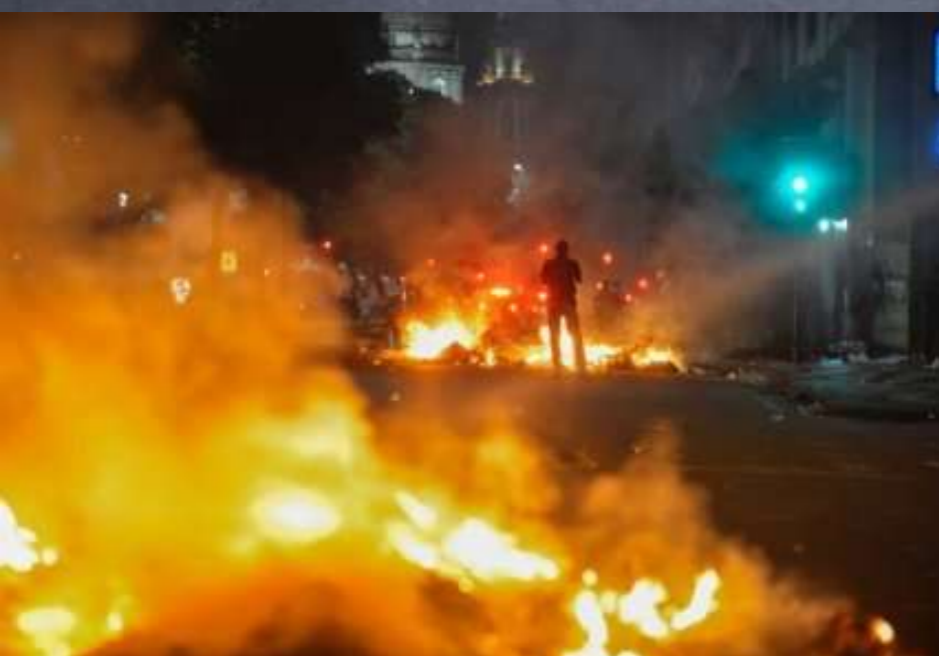
Limity financií – úloha centrálnych bánk



Limity financií – úloha vlád

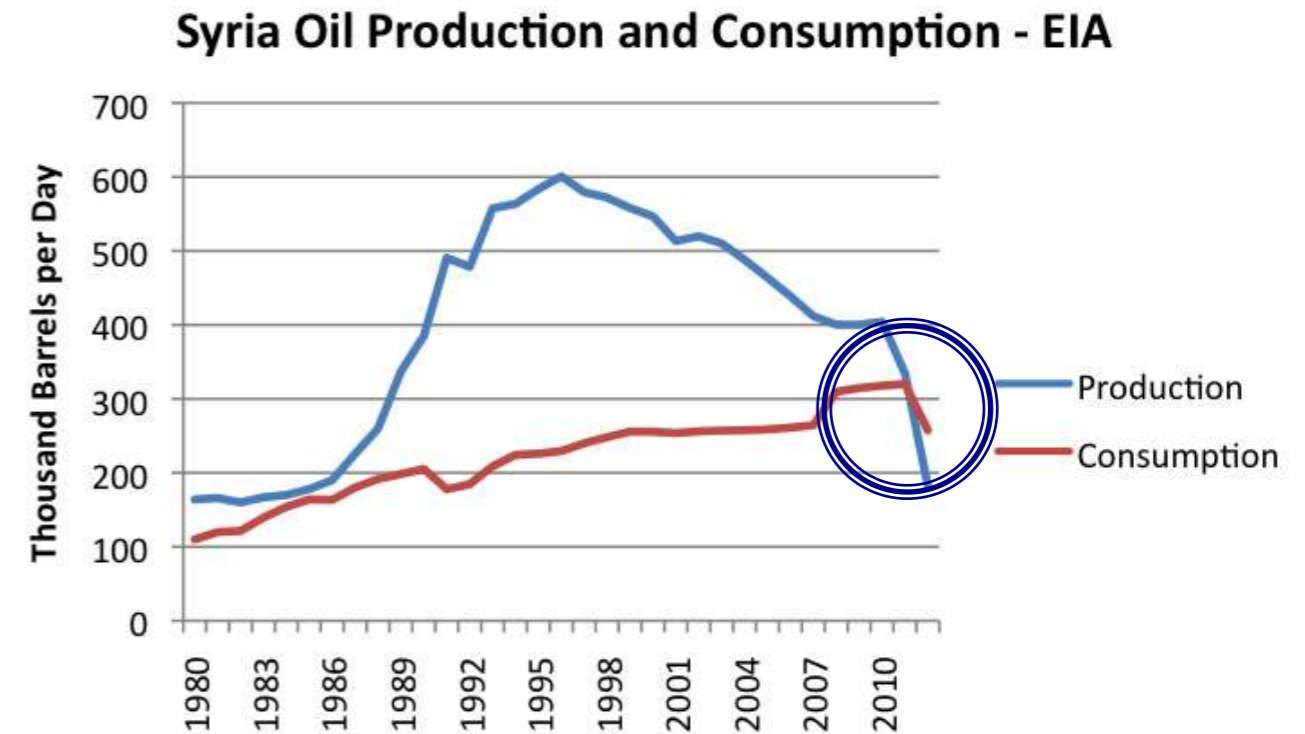
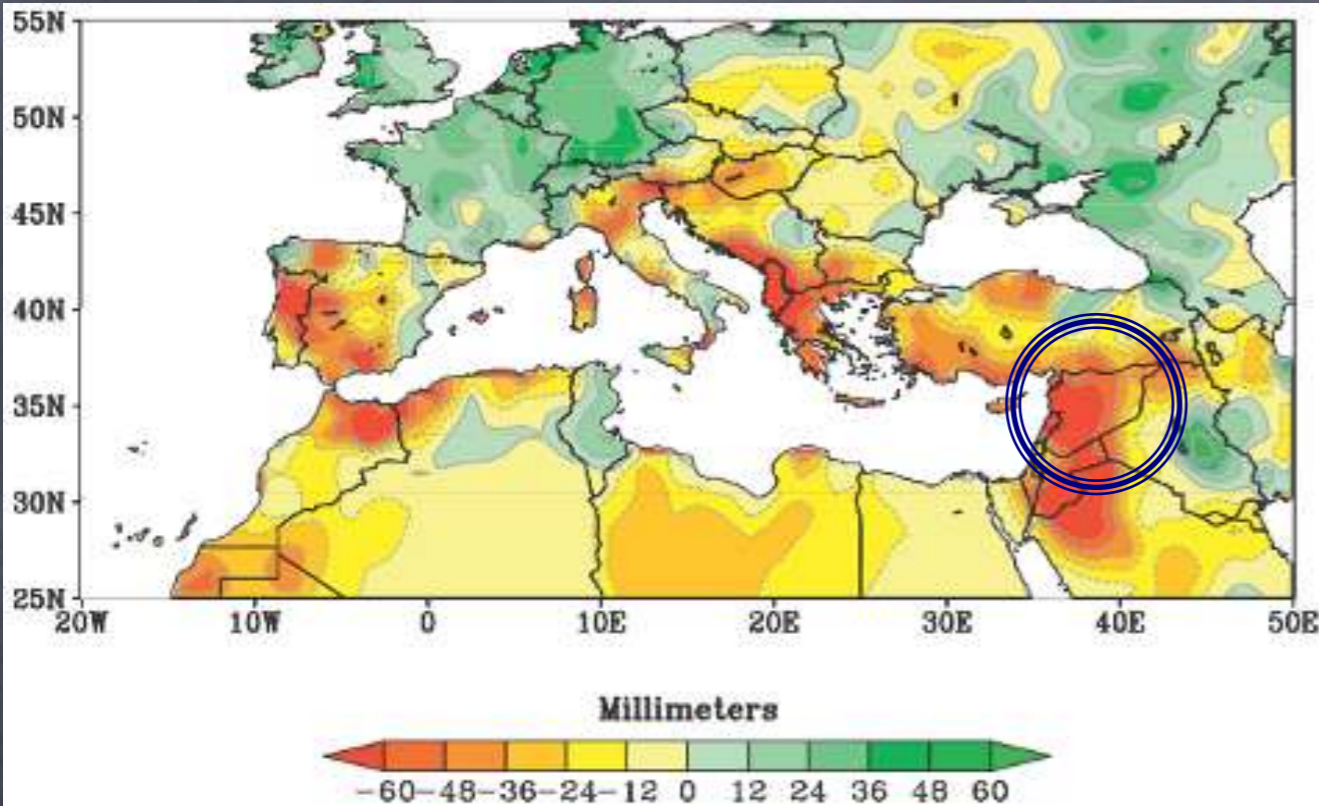


Krajiny, kde dnes znamená zajtra



„Budúcnosť je tu už dnes, ide len o to, kde sa nachádzate“

Sýria



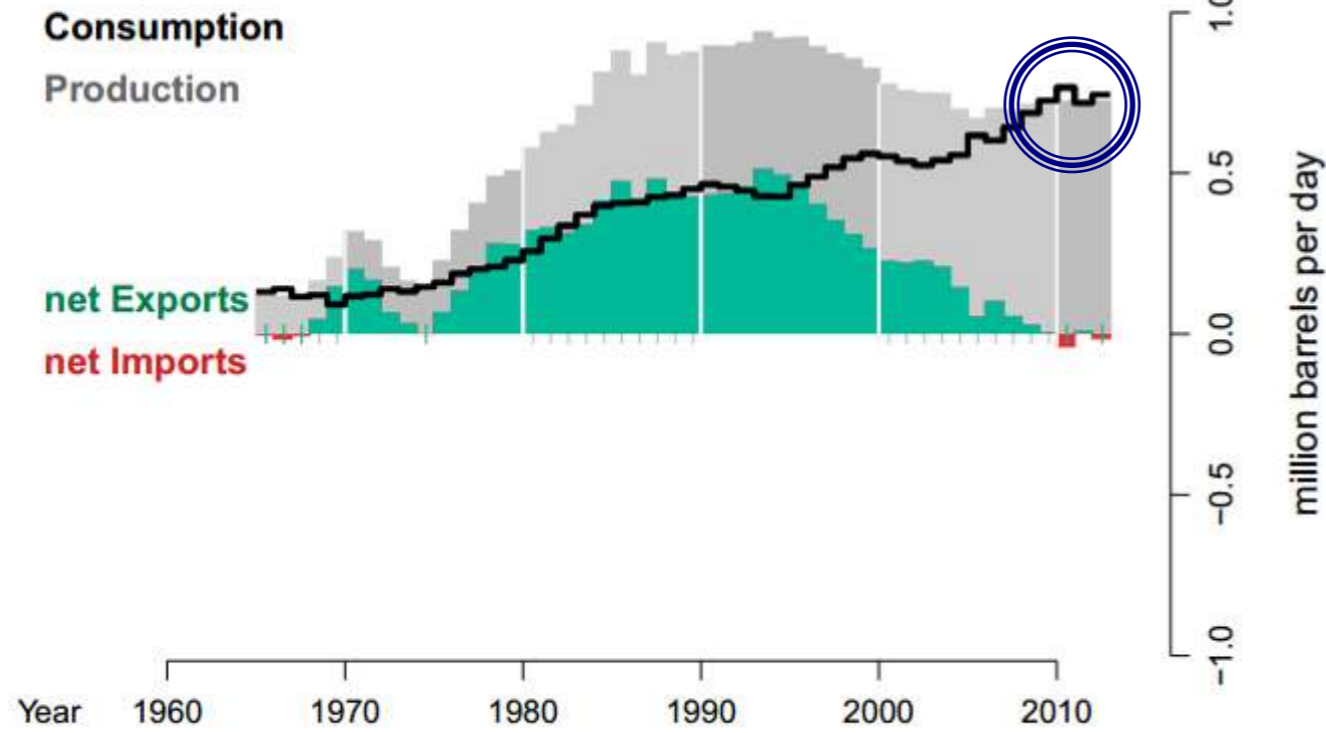
Klimatická zmena (sucho) + vyčerpávanie zdrojov → občianska vojna



Egypt

Egypt : Oil

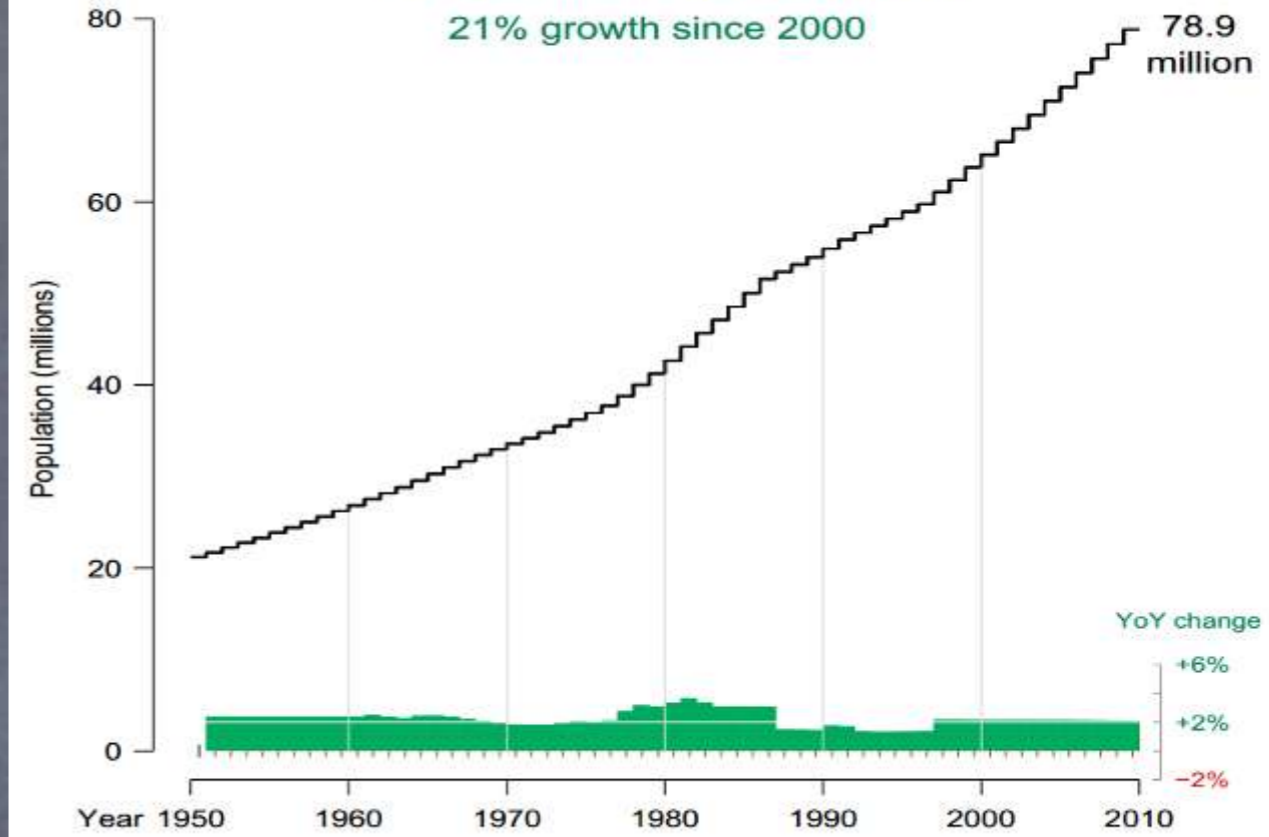
2012 imports increased by 282 %



Data: BP Statistical Review 2013 Graphic: mazamascience.com

Egypt : Population

21% growth since 2000



Data: US Census Bureau IDB Graphic: mazamascience.com

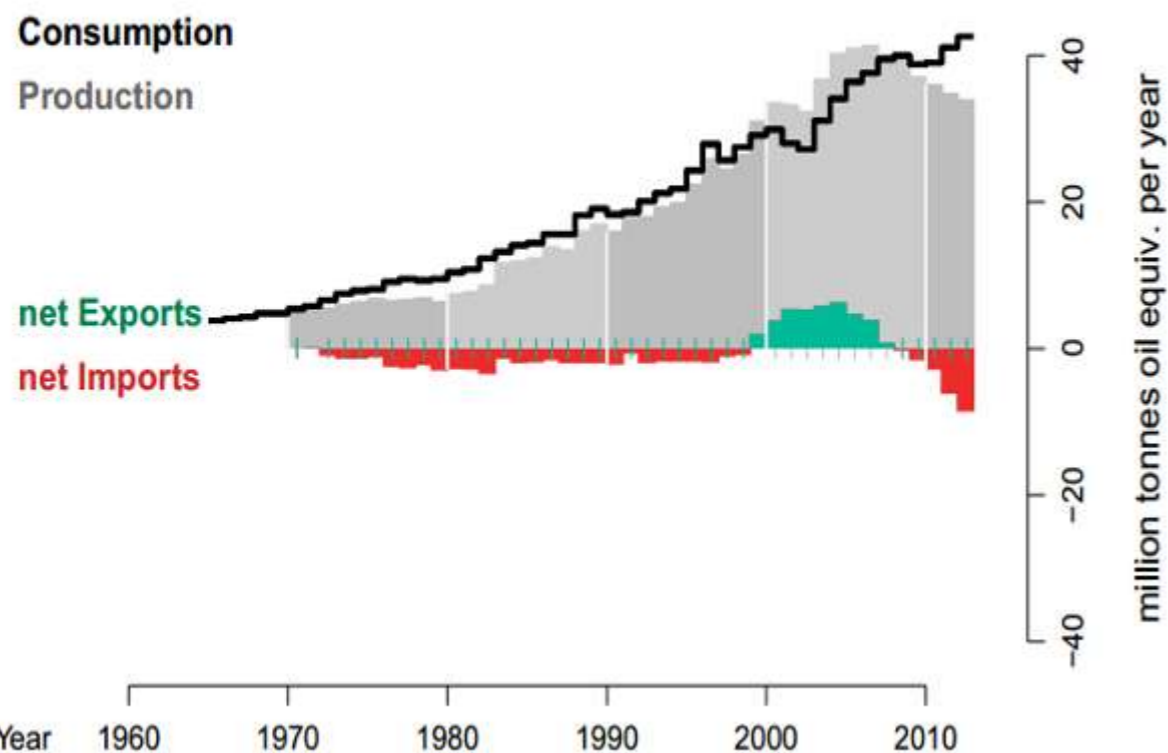
Vyčerpávanie zdrojov + populačný rast → čoskoro občianska vojna



Argentína

Argentina : Nat. Gas

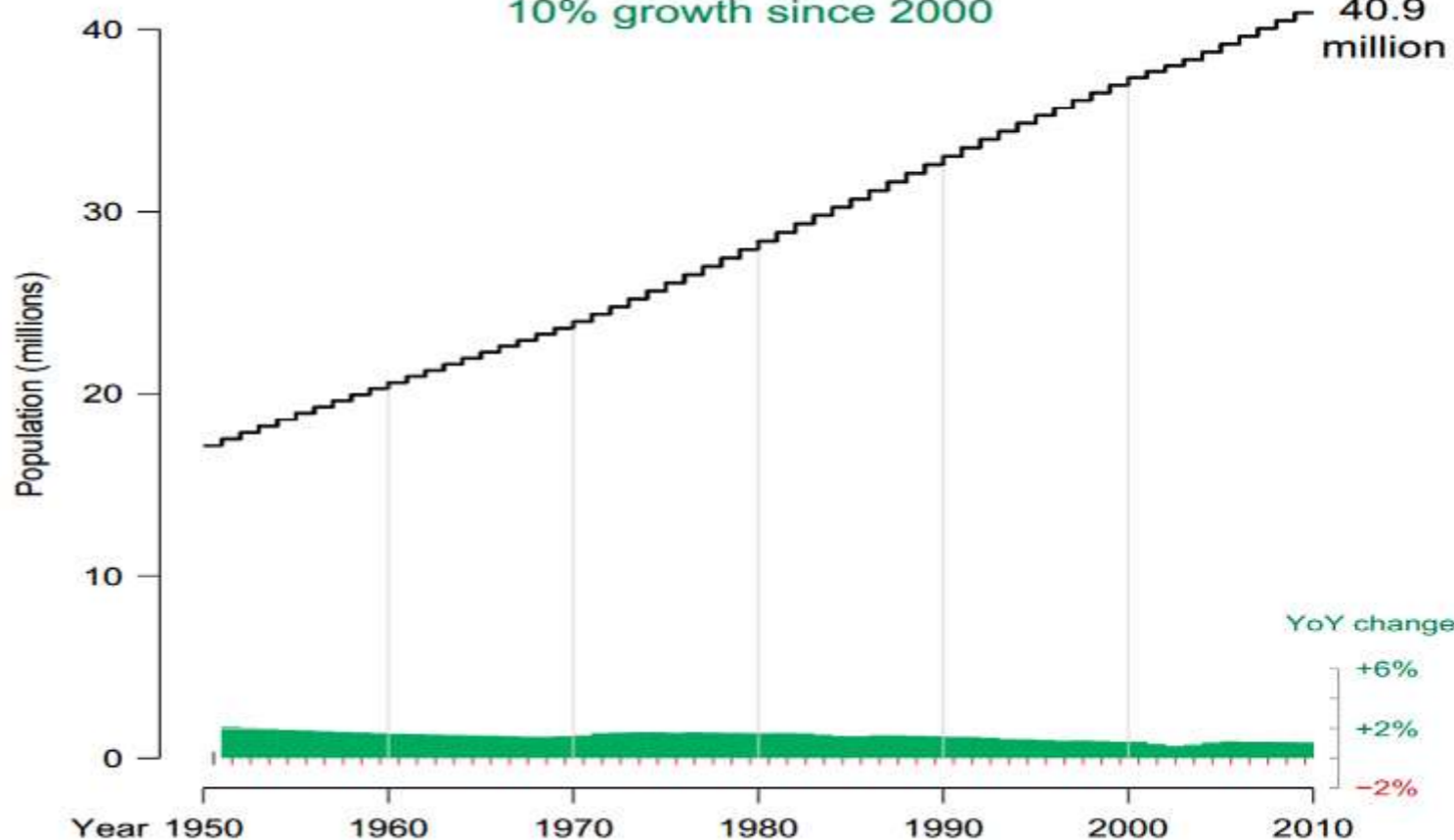
2012 imports increased by 38. %



Data: BP Statistical Review 2013 Graphic: mazamascience.com

Argentina : Population

10% growth since 2000



Data: US Census Bureau IDB Graphic: mazamascience.com

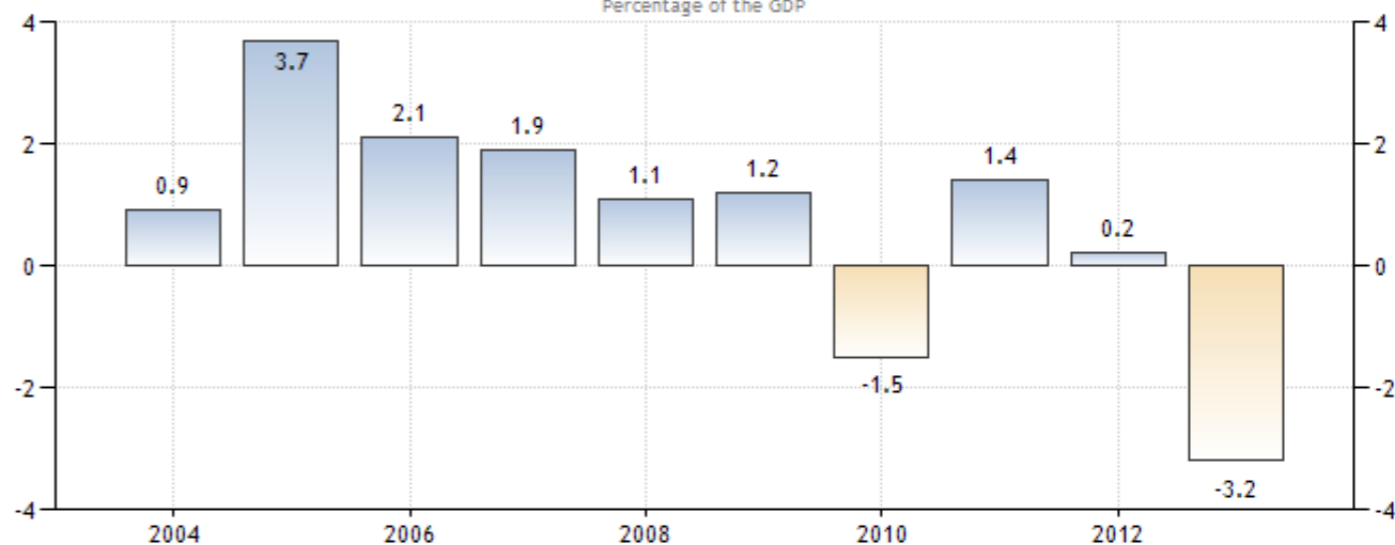
Vyčerpávanie zdrojov + populačný rast → Ekonomické problémy

Devalvácia meny = zdražovanie dovozu



ARGENTINA GOVERNMENT BUDGET

Percentage of the GDP



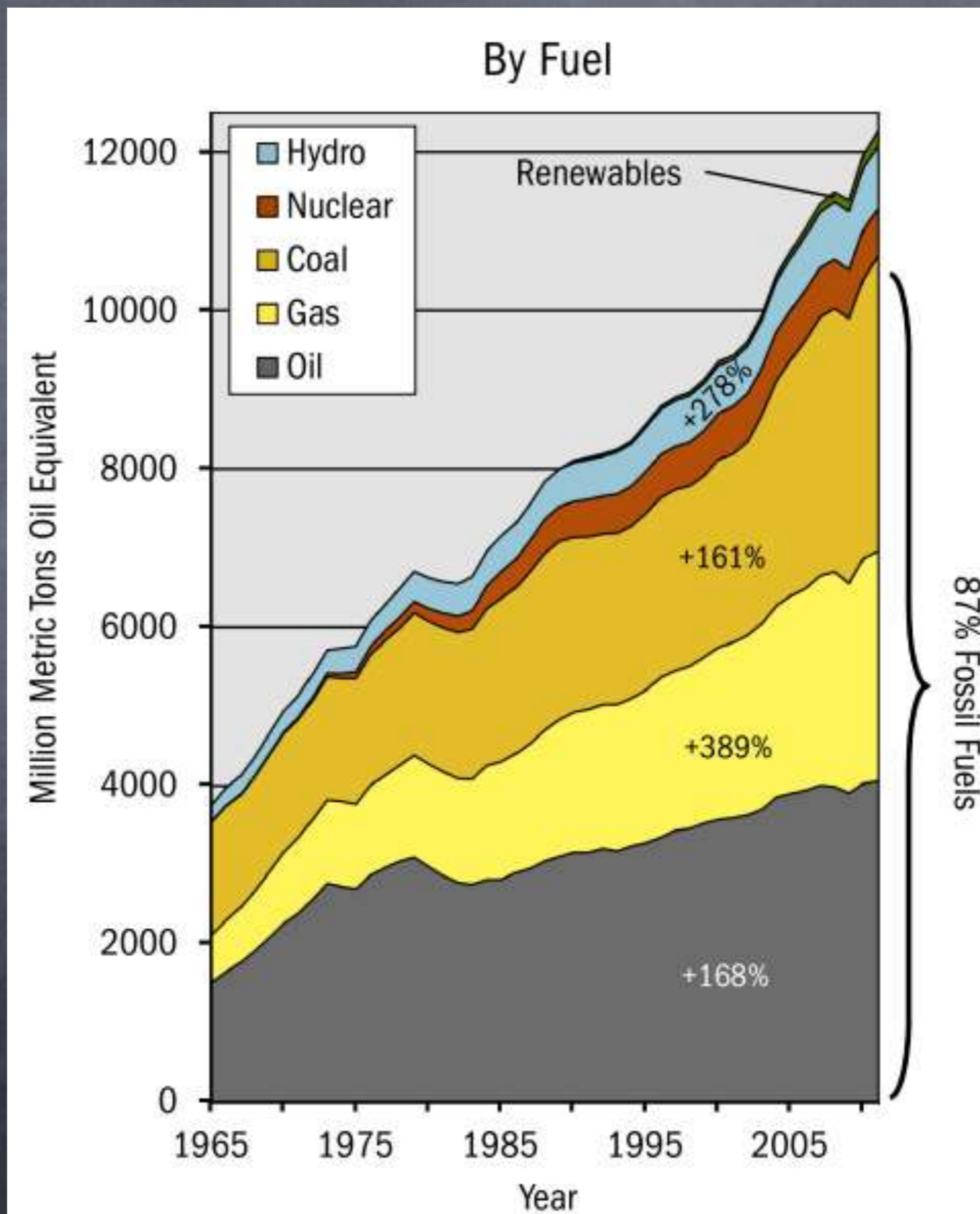
SOURCE: WWW.TRADINGECONOMICS.COM | MINISTRY OF THE ECONOMY, GOVERNMENT OF ARGENTINA

India+Čína – „jazdci apokalypsy“

India



Koľko energie je z obnoviteľných zdrojov?



Záver ?