

The Impact of Rule of Law and Other Macro-Economic Variables on Performance of the Stock Markets

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Abstract- This research study investigated the impact of rule of law and other macro-economic variables on the performance of the stock markets. The independent variables for the study are rule of law, real interest rate, consumer price index inflation, gross capital formation, gdp per capita and trade. In the study, some of the advanced and emerging countries are selected. The data is examined annually from 2005 to 2015 in panel form. The measuring variable for the study which correlates the performance of stock markets with the economy is stock market return. To estimate the relationship Pearson correlation, regression analysis and descriptive statistics tests have been used. Regression analysis is performed in two models, one with rule of law and one without it. The results indicated that there is a significant relationship between real interest rate and the stock market return and a significant relationship between the stock market return and the inflation rate is also observed, this shows that whenever there is an increase in inflation and interest rates of an economy that will inevitably lead to the increase in the stock market performance of that economy. Rule of law makes an expressive impact on the research, a significance between rule of law and stock market return is seen which means that whenever the law and order is implemented the stock market performance tends to be increased. On the other hand, GDP, gross capital formation and trade shows insignificance with the stock market return. Most of the results are supporting the theories and literature.

Index Terms- Stock market performance, macro-economic variables, rule of law, panel data, fixed effect model, GDP per capita, gross capital formation, trade, pooled regression.

I. INTRODUCTION

Stock markets behavior can be in expectable, volatile and variative sometimes when they are related with the macro-economic variables. The demand and supply quotient makes it more interesting. Bhowmik (2013) estimated the volatility of stock market along with its measurement. The results showed that when there is a higher volatility of stock in the market there is a decline in the growth rate of the economy.

Stock markets directly impacts the variative nature of the economy; a change in the stock market could lead to a up and down change in the economy. Attari and Safdar (2013) shows this impact in their research that the stock prices have an upper hand on the growth of the economy and is considered as the excellent indicator and forecaster for the growth and development of the economy.

The macroeconomic variables are affecting the stock markets in a meaningful manner. Some researchers have defined this as a causal relationship between the macro economic variables and the stock exchanges. Fazal (2006) find out the variations in the stock market, which may be the cause of variability in macroeconomic variables.

A stock market is also an efficient capital market. Mandeep (2009) assessed the validation of Efficient Market Hypothesis on Bombay stock exchange resulting the change in prices of the stocks related to the efficiency of the stocks. As an efficient capital market relates to share prices which changes rapidly to the arrival of new information and, therefore, the current prices of securities reproduce all information about the shares.

This study differs from the past researches in many ways. First, it is discussed within the coherent empirical framework on the impact of rule of law and other macroeconomic variables on stock market performance over the period of 2005 to 2015. Second, the use of a sample consisted of 24 developed and emerging markets with a pooled analysis framework which allows to know about if the heterogeneity of the markets affects the dynamics of the stock market's performance. Third, the theories of arbitrage pricing and fishers effect to describe the relationship of real interest rate and inflation rate with stock market performance and fourth, the rule of law acts as a helping agent for the other macro-economic variables by making trade a significant variable for the study.

The main purpose of the study is to analyze the impact of inflation, real interest rate, rule of law and other macro-economic variables on the performance of the stock markets This research paper is distributed into different sections. Section 2 shows a transitory overview of the literature of parallel studies conducted on stock market returns and macroeconomic variables with a theoretical and empirical framework. Section 3 shows the data and methodology for the research. Sections 4 and 5 provide an explanation of results and conclusion of the study respectively.

II. LITERATURE REVIEW

In the last 20 years, many researchers have analyzed the relationship of stock markets performance and macro-economic variables. Some have conducted empirical studies to examine this relationship between stock market performance and macro-economic variables. This section is divided in to two portions, one shows the theoretical inspirations of the research and other showing the empirical results of the past researches to support the research.

THEORETICAL FRAMEWORK

FISHER'S EFFECT THEORY OF INTEREST RATES

The Fisher's effect theory of interest rates is substantial for explaining the inter relationship of inflation and interest rate in the research agenda. This effect states the relationship between inflation and interest rates which gives an impression that monetary policy should purely emphasize on supporting the expectations of inflation to keep real interest rate stable, strong and steady. This relays that the real interest rates fall as inflation rises or tends to, except the nominal rates which tends to increase at the same rate as inflation. This also results in performing savings and making investments. Cottrell (1994) also evaluated fisher's effect theory. The supposition about Fisher's theory (1930) is that all the capital circulates within the economy and its usage in the production course copiously. As no stock of capital is found so at a required real rate there is a rise or fall in the expected rate of inflation which leads to deal in with the increasing or decreasing the nominal rate of interest with the help of arbitrages between future and present cumulative income. If there is a rise in expected inflation this results in increasing the money supply which means that the aggregate real income grows more rapidly than the anticipated real sum of money which needs to be compensated. Thus, fisher's theory impacts both on the real interest rate as well as nominal interest rate.

ARBITRAGE PRICING THEORY

Arbitrage pricing theory is related to CAPM model which automatically involves the correlation of risk and return in an investment but both theories are not totally as same as it looks like because in arbitrage pricing theory macroeconomic variables independently performs a linear relationship between the returns of the portfolio and return of a single asset.

Salman (2013) test the CAPM model on KSE 30 index using the Sharpe Lintner (1965) approach. The evidence does not validate standard CAPM model. As the measurement of stock exchange is frequently related to stock return with the concept of CAPM model. Stock exchanges are connected to portfolio's, so to measure its return or equity premium CAPM model theory is emboldened. In earlier studies, many works have been comprehended regarding to stock returns and macro-economic variables.

Husam and Turgut (2009) studied the effects of macroeconomic factors on stock return, an evidence from Istanbul stock exchange. The independent variables are interest rate, unanticipated inflation, risk premium and trade and stock return is the dependent variable. The APT model, CAPM, correlation and regression models are used. The results indicated that inflation has significant relation with stock return. Risk premium and interest rate have significant impact on various portfolios of stock return. On the contrary, findings these results have week illuminating authority.

EMPIRICAL FRAMEWORK

In the past, so many researchers have tried to explain the impact of macro-economic variables on the stock exchanges of different countries. Mahmoud (2015) investigated the impact of macroeconomic variables on the stock market, the case study is taken from Tunisia and Egypt. The data was collected from January 1988 to January 2014. The results indicated a causal relationship between the macroeconomic variables and the stock

markets. The variables are appropriately correlated with the stock markets of the emerging countries.

Robert (2008) also conducted a study on effect of macroeconomic variables on stock market returns as a case study for four emerging economies (Brazil, Russia, India and China). The independent variables are trade and oil prices. Although the results are not showing signs of significance but it also indicated the less proficiency of the stock markets when related to these variables for the selected countries.

Attari and Safdar (2013) shows in their research, the analysis of relationship between macroeconomic volatility and the stock market volatility an empirical evidence from Pakistan. An EGARCH model is used. The results estimated that the macroeconomic variables have wide effect on the stock prices Joseph (2013) investigated the impact of changes in selected macroeconomic variables on stock prices of the Stockholm Stock Exchange (OMXS30). The results indicated that inflation and foreign currency depreciation have a significant negative effect on stock prices and the interest rate is negatively correlated to stock price change and is insignificant in the whole model. On the contrary, money supply is positively associated to stock prices even though is insignificant in study.

Early studies by Fama and Schwert (1977) reassured that the macroeconomic variables eventually influence stock returns. This relationship continues furtherly when Booth (1997) and Chan (2003) present that trade, inflation rate, interest rate, foreign exchange reserves, money supply and industrial production index are the main factors that affect the stock market prices. Gjerde and Saettem (1999) study the relation between stock returns and macroeconomic variables in Norway. The study shows positive relationship with the economic development and stock returns but on the other hand showed a negative relationship between stock returns and inflation.

Burton (2008) studied that interest rate measures the percentage reward a lender receives for deferring the consumption of resources until a future date. Thus, interest rate also plays a major role in financial enchantments and economic development. Interest rate always make an impact on stock exchanges because stock markets deal with the securities which are co related with the interest rates.

Muhammad Gazi (2009) investigated a study on relationship between interest rate and stock price an empirical evidence from developed and developing countries. Fifteen countries are taken for the study. Panel regressions methods are used and the results showed that for most of the countries interest rate has significant negative relationship with share price but for some countries, a slight change in interest rate has showed significant relationship with changes of share price. So, in long run this will eventually make these countries stock markets healthier.

Inflation acts as a discriminating variable when related to stock exchanges of any country. Ahmed (2015) conducted a study on inflation rate and stock returns: evidence from the Nigerian stock market. The results indicated that inflation has a negative and weak correlation with the stock returns in Nigerian stock market. It gradually makes impact when the stock prices variates.

Yogaswari, Nugroho and Astuti (2012) estimate the relationship between macroeconomic variables and stock returns

in case of Indonesia. The research stated that the inflation, trade and interest rate have significant relationship with the stock exchange prices and inflation has positive effect while the interest rate volatility embraces negative impact on stock prices. Zhong qiang (2014) performed a study on the impact of inflation on stock market in China. The data for the period is from 2001 to 2010. Vector Auto Regression is used to specify the significance of the variables. The result indicated that inflation has a very weak correlation with the stock prices of the Chinese stock exchange.

Some studies showed that a well-developed financial structure of a country could lead it to success, whether it is under developed, developed or over developed. Aroni (2011) uses the regression method for the estimation of the outcome of macroeconomic variables at stock returns in Kenya. The data was collected from 2008-2010. The result showed that the interest rate and trade have negative relationship to stock prices. Whereas inflation showed positive effect on stock prices.

Bhattacharya et al. (2001), analyzes the causal relationship between stock returns and macroeconomic variables in India and one of the variable is trade. The results shown that there is no causal relationship between the stock returns and variables.

In general, the effect of trade on stock prices can be either a positive or a negative relationship. Based on Doong et al (2005) work, we assume the negative relationship is majorly beneficial for the study but not in all cases exceptionally. Mansor and Dinniah (2009) examined the relationship between stock return and macroeconomic variables an evidence from six Asian pacific countries. The results showed that there is a long run relationship between variables. In short run, all countries show identical exchanges except Thailand and Hong.

Mgammal (2012) studied multiple variables (interest, trade and inflation rate) on stock prices. The study was conducted on United Arab Emirates (UAE) and Kingdom of Saudi Arabia (KSA) for the period of January 2008 to December 2009. The results showed that in short run, trade effect positively on stock market price index for United Arab Emirates while showing no significant relationship for Kingdom Saudi Arabia. The result also showed that in long run, trade influence negatively on stock market price index for United Arab Emirates.

Singh and Mehta (2011) performs a study on macroeconomic factors and stock return; an evidence from Taiwan. The techniques of multiple regression, mean, variance, and the Kolmogorov D-statistic normality test are used. The results showed that GDP and trade effects all portfolios return positively, while trade, inflation rate and money supply have negative impact on returns.

A study by Shawtari and Saleem (2015) explains the long-term relationship between macroeconomic variables and stock price. This study examines the long-term consistency between South Africa's stock index and nominated macroeconomic variables using vector error-correction models (VECM). The results indicated that these variables are co integrated with the stock prices in the long run.

In the modern world, less effective governance might affect the firm's capability to remain operating in the long run. Some of the African countries proceeded over the last decades in standings of fair and competitive elections, but governments are unnecessarily stable and inefficient (EIU, 2012). The rule of law

must be recognized to ensure a long-term relationship with the stock market.

In North Africa authoritarianism was challenged later the 2011 Arab Mainspring and current takeovers. However, new governments in these countries are unnecessarily firm and may face trials in making effective and efficient political and economic institutions all over the north (Aon, 2013). So, the business firms should face uncertain legal and regulatory systems, new contract specifications, sovereign debt problems or political interference risks (Aon, 2013).

La Porta et al. (1997) shows effect of law and administration on the stock market return. The economies should provide legal investors to the stock market by legal enforcements and legal rights prosecutions. In this way, the finance from the investors increased which directly affects the economy and it helps in the development of the stock market.

"If an effect is assumed to be a realized value of a fixed variable, it is called a fixed effect." (LaMotte, 1983). Fixed effect is mostly used in the past researches in the regression analysis. Mike and Timothy (2016) examined the impact of macroeconomic variables on stock returns of listed banks in the Nairobi Securities Exchange (NSE) from 2000 to 2015. The ordinary least squares (OLS) under fixed effects model was used. The observed results show that interest rate, trade and inflation have significant impact on bank stock return, while GDP had an insignificant impact on the returns.

Miseman and Ismail (2013) investigated the impact of macroeconomic forces on ASEAN stock market movements including Malaysia, Indonesia, Thailand, Singapore and the Philippines. The results stated a sturdy and significant effect of interest rate, broad money and inflation rate on the stock market movement, while domestic output is found to be unpredictably insignificant.

III. METHODOLOGY

This research is explanatory and quantitative in nature. The objective of this paper is to empirically examine the impacts of macroeconomic variables on the stock market returns. In this study, stock price index return is considered as the dependent variable. On the other hand, based on theoretical and empirical studies, six macro-economic variables namely Inflation (Inf), Real interest rate (Ir), Rule of law (Rule), Gross domestic product (Gdp), Trade (Trd) and Gross capital formation (Gross) are used as predictor variables. The study examines yearly data from the period of 2005 to 2015 collected from different sources. The data is cross sectional in nature and is taken from 24 emerging and developed countries. These countries are Australia, USA, UK, Russia, Canada, Pakistan, South Africa, South Korea, Japan, China, India, Indonesia, Malaysia, New Zealand, France, Germany, Brazil, Mexico, Switzerland, Singapore, Turkey, Spain, Philippines and Hungary. The statistical techniques used in this research are least square regression analysis under fixed effect, descriptive statistical measure and correlation matrix.

3.1 MODELLING FRAMEWORK

Following is the model of this study:

$$Y_{Stret} = \beta_0 + \beta_1 inf + \beta_2 ir + \beta_3 trd + \beta_4 gdp + \beta_5 gross + \beta_6 rule + \varepsilon$$

The variables are defined as, "YStret" represents stock market index return, "inf" represents inflation (CPI), "ir"

represents real interest rate, “trd” represents trade, “gdp” represents gross domestic product per capita, “gross” represents gross capital formation, “rule” represents rule of law and “ε” represents fixed error term.

to evaluate the resultant in the positive assurance of the literature and the problem.

IV. EMPIRICAL FINDINGS

Since the real agenda of this study is to analyze the impact and relationship between the macro-economic variables and the performance of stock markets, different techniques are selected

1.1 DESCRIPTIVE STATISTICS

The panel regression model is used to analyze the data to find out the overtone among trade, inflation rate, rule of law, interest rate, gross capital formation and gdp with stock market index return. Table 1 represents the summary of information collected for this investigation:

Table 1: Descriptive Statistics

	STRET	RULE	TRD	IR	INF	GROSS	GDP
Mean	12019.31	0.799828	78.15740	4.552015	3.880117	5.21E+11	2593045.
Median	6191.510	1.019463	56.04481	3.274352	2.997694	2.71E+11	54124.67
Maximum	69304.00	2.017012	439.6567	44.63500	20.28612	5.03E+12	44807497
Minimum	631.8900	-0.974740	22.10598	-12.28002	-1.346719	29869.85	9562.715
Std. Dev.	14427.25	0.956513	74.79540	7.032613	3.382200	8.76E+11	7757793.
Skewness	2.057778	-0.356825	3.084632	3.071241	1.374032	3.093152	3.407592
Kurtosis	6.714952	1.558648	13.02712	14.99647	5.516281	12.64737	14.01139
Jarque-Bera	329.1598	27.70023	1484.206	1945.120	148.6694	1406.456	1795.761
Observations	257	257	257	257	257	257	257

4.2 CORRELATION MATRIX

The result is a table containing the correlation coefficients between each variable and the others. Table 2 shows the correlation of different variables with each other:

Table 2: Correlation Matrix

	STRET	TRD	RULE	GROSS	GDP	IR	INF
STRET	1.000000						
TRD	-0.202471	1.000000					
RULE	-0.381834	0.195299	1.000000				
GROSS	-0.141358	-0.238526	0.013119	1.000000			
GDP	-0.178605	-0.027483	-0.186040	-0.071909	1.000000		
IR	0.571126	-0.132242	-0.337162	-0.081109	-0.024412	1.000000	
INF	0.180138	-0.160766	-0.471447	-0.216218	0.041559	0.233976	1.000000

The Table 2 reveals Pair wise correlation. Positive and negative signs represent the direction of association and the nature of relationship is indicated by the value of correlation coefficient. As seen from the table 2 the correlations among the dependent and independent variables are being clearly stated. Stock market return is positively correlated with inflation, and interest rate. But on the other hand, the gross domestic product,

rule of law, gross capital formation and trade are negatively correlated with the stock market return. This is due to the multi dependency of the variables with each other.

4.3 REGRESSION ANALYSIS

Table 3: Regression Analysis

Variables	MODEL 1		MODEL 2	
	Coefficient	Probability	Coefficient	Probability
C	15554.44	0	7092.491	0.0828
Trade	-2.866603	0.9223	14.81919	0.6191
Interest rate	-391.2817	0.0003	-355.7696	0.0008
Inflation	-594.8689	0.0005	-624.8954	0.0002
Gross capital formation	8.46E-10	0.3823	6.56E-10	0.4936

Gross domestic product	0.00013	0.3356	2.76E-05	0.8428
Rule of Law	-----	-----	9251.272	0.0096
R squared	0.901655	-----	0.904523	-----
Adjusted R squared	0.889577	-----	0.892325	-----
Durban Watson Stat	1.295685	-----	1.342168	-----
F-statistic	74.65565	-----	74.15619	-----

In table 3 a comparative analysis of the regression models is shown. The total number of observations are 264. Model 1 shows the regression analysis of the study between stock returns and macro-economic variables. The dependent variable is stock market index return and the independent variables are trade, inflation, gross domestic product, gross capital formation and real interest rate. The results showed that interest rate and inflation rate has negative significance with stock returns which means that when interest rate and inflation is declined the stock market index will rise. While gdp and gross capital formation shows positive relationship with stock return but are insignificant. On the other hand, trade is negatively insignificant with stock returns. The f statistic in the table also confirms that the model is statically significant overall. The Durbin Watson statistic is less than 2 which means that there is positive serial correlation indicated in the model.

But in the model 2, the results showed that inflation and interest rate have negative relation with the stock returns and both are significant. While the variable with the most effective result is rule of law which has positive relation with stock returns and shows significance. This means that when the law and order is executed there is an increase in the stock market performance. Trade also shows positive relation with stock returns when rule of law is applied but in the end, it is insignificant. Same goes for gross domestic product and gross capital formation which shows positive relation but are insignificant. The f statistic in the table also confirms that the model is statically significant overall. The Durbin Watson statistic shows positive serial correlation in the model.

The correlations among the variables shows insignificance among them, but since there is multi dependency among the variables, the results are changed in the regression analysis where rule of law acts significantly and trade becomes effective when rule of law is used.

V. CONCLUSION

This study explains the impact of real interest rate, inflation, rule of law and other macroeconomic variables on stock returns. The focused variables are closely related to each other because if there is a rise in inflation in the economy this could automatically lead to rise in interest rates of that economy. When the economy rises, gdp and gross capital formation becomes variative resulting their interdependence with the economic performance. Same goes for rule of law and trade that trade becomes only effective when there is rule of law in the economy.

The results indicate that the real interest rate, inflation and rule of law along with other macroeconomic variables strongly affects the stock market returns. It is strongly noted that any variation in inflation, real interest rate and rule of law has strong positive influence on the performance of the stock market. Descriptive statistics, correlation matrix and regression analysis under fixed effect models are used to test the relationship between macro-economic variables and stock returns. The analysis shows that real interest rate, inflation rate has negative relationship with stock returns and both are significant in nature. Two regression models, one consisting rule of law as a focused variable and other without it are performed. The results show that rule of law has positive relationship with stock returns and is significant in nature. It also effects the relationship of trade openness and stock returns in a positive manner which means that when the law is abided in a country there is a positive increase in the stock market return which eventually led to an increase in the trade percentage of the economy. On the contrary, GDP per capita, gross capital formation and trade are showing positive insignificance with the stock market returns. As there is multi dependency among the variables the results are changed in the regression analysis, which shows the leniency of variables with each other.

APPENDIX

YEAR	COUNTRY	GDP	INFLATION	INTEREST RATE	STOCK	RULE LAW	GROSS CAPITAL	TRADE
2005	USA	44307.92058	3.392746845	2.878895959	6081.529785	1.526085973	3,040,749,800,000.00	25.50066345
2006	USA	46437.06712	3.225944101	4.739619623	6964.450195	1.575106382	3,232,996,400,000.00	26.87362225
2007	USA	48061.53766	2.852672482	5.248970835	7069.169922	1.578988552	3,235,947,300,000.00	27.95893114
2008	USA	48401.42734	3.839100297	3.065749495	4500.529785	1.612591863	3,059,440,300,000.00	29.94141012
2009	USA	47001.55535	-0.355546266	2.471793576	5095.72998	1.575369835	2,525,144,100,000.00	24.7658273
2010	USA	48374.08679	1.640043442	2.004172652	5599.22998	1.629834175	2,752,636,000,000.00	28.18245229
2011	USA	49781.80066	3.156841569	1.161394072	5584.419922	1.60523665	2,877,761,500,000.00	30.88516468
2012	USA	51433.04709	2.069337265	1.382482478	6210.759766	1.615467906	3,126,139,800,000.00	30.71462753

2013	USA	52660.2951	1.464832656	1.593923538	7892.459961	1.546544313	3,298,621,000,000.00	30.22625804
2014	USA	54398.46001	1.622222977	1.581365768	8527.040039	1.614708066	3,480,972,000,000.00	30.23815819
2015	USA	55836.79263	0.118627136	2.235481298	8246.070312	1.603705764	3,670,026,000,000.00	28.00186043
2005	UK	22026.34828	2.049668311	1.68297469	5619	1.546938539	442,849,090,909.09	52.13486176
2006	UK	23117.39545	2.333527794	1.603997778	6221	1.757053852	482,888,684,452.62	56.03698432
2007	UK	24204.39309	2.321035915	2.574535317	6457	1.684502482	566,672,669,067.63	52.33739851
2008	UK	24586.16537	3.613498886	1.764719688	4434	1.663806438	498,851,102,941.18	56.75485791
2009	UK	23857.03254	2.166231372	- 1.375897334	5413	1.725816011	348,769,278,703.85	54.72441178
2010	UK	24783.1462	3.285714286	- 2.532556408	5900	1.761354208	388,161,310,259.58	59.22182037
2011	UK	25600.81726	4.484239645	- 1.563418231	5572	1.645092845	413,751,001,442.08	62.70652237
2012	UK	26141.36825	2.821709747	- 1.107699076	5898	1.700701237	425,702,996,370.68	61.8261968
2013	UK	27054.37384	2.554546687	- 1.456129255	6749	1.684358597	454,365,971,847.69	61.76965134
2014	UK	28124.82782	1.460191609	- 1.313391754	6566	1.886925936	522,061,104,096.15	58.13676968
2015	UK	28625.89209	0.050020842	1.9	6242	1.80505681	502,725,953,492.49	56.46078753
2005	AUS	45204.12066	2.668732782	5.156734303	4708.799805	1.711699724	190,267,628,927.98	38.86503191
2006	AUS	48194.93765	3.538487339	4.136194431	5644.299805	1.749938369	206,762,503,743.64	41.01724853
2007	AUS	52167.98863	2.332361516	3.065919527	6421	1.737974048	237,737,300,777.26	41.40257001
2008	AUS	55434.6046	4.352643242	4.180804651	3659.300049	1.753780723	307,376,007,162.04	42.11823852
2009	AUS	58015.69264	1.82011224	1.043272004	4882.700195	1.731940746	258,737,299,366.81	44.94695497
2010	AUS	58860.37196	2.845225682	6.208688426	4846.899902	1.763202667	314,896,503,126.93	39.86036365
2011	AUS	63106.24375	3.303850156	1.460311026	4111	1.741719484	377,030,464,359.66	41.24351413
2012	AUS	65603.19152	1.762780156	4.81999084	4664.600098	1.756849289	436,115,693,957.52	42.69559759
2013	AUS	65941.07033	2.449888641	6.391280371	5353.100098	1.764851332	444,287,473,068.64	40.88919911
2014	AUS	67532.05729	2.487922705	4.473145552	5388.600098	1.927459359	396,035,068,392.55	42.30167275
2015	AUS	67700.28841	1.508366722	6.254552274	5344.600098	1.824118853	356,023,795,656.88	41.00693812
2005	RUS	150571.2645	12.6833396	- 7.227427496	1125.6	1.898550749	29869.85398	56.71324849
2006	RUS	188167.0059	9.687108886	- 4.120035742	1921.92	1.802072406	33579.85948	54.73340187
2007	RUS	232817.4275	8.991328161	- 3.313656292	2290.51	1.836185932	39223.58187	51.70614332
2008	RUS	289170.3071	14.11222781	- 4.861586927	631.89	1.807906985	39721.04818	53.38252965
2009	RUS	271787.1319	11.66972477	13.05434309	1444.61	1.755254865	38577.55822	48.43508421
2010	RUS	324177.2475	6.835359842	- 2.951623894	1770.28	1.766327262	46569.67951	50.35555028
2011	RUS	417583.6242	8.428175946	-12.2800231	1381.87	1.737846971	53093.67015	48.37003455
2012	RUS	467360.8942	5.078014184	0.739674555	1526.98	1.822865963	54451.21033	47.98028534
2013	RUS	494866.2624	6.776457883	4.482379108	1442.73	1.801779151	55617.6125	47.63694502
2014	RUS	533539.2187	7.81289507	1.977850267	790.71	2.015710115	56007.28821	48.44526955
2015	RUS	551919.6385	15.52532833	7.462273929	757.04	1.96619904	52888.74467	50.73801127
2005	FRA	28046.78794	1.735587081	3.4	4715.22998	1.3999722	493,087,924,387.51	53.1520143
2006	FRA	29129.62775	1.68372645	3.8	5541.759766	1.447859049	538,788,106,887.47	55.18724501

2007	FRA	30393.38665	1.488073528	4.3	5614.080078	1.431403041	642,110,594,032.30	55.54770336
2008	FRA	31003.49996	2.813915043	4.2	3217.969971	1.478327274	704,202,431,521.90	56.52383696
2009	FRA	29966.08839	0.088084169	3.6	3936.330078	1.427502632	573,909,419,283.13	49.56784804
2010	FRA	30732.8535	1.529639382	3.1	3804.780029	1.511528373	579,989,403,973.51	53.96843903
2011	FRA	31515.09816	2.117486809	3.3	3159.810059	1.439950109	664,403,669,724.77	58.16900437
2012	FRA	31783.97311	1.9556855	2.5	3641.070068	1.44141233	607,259,264,552.65	59.20038487
2013	FRA	32062.88865	0.86360693	2.2	4295.950195	1.408891439	626,510,319,960.07	59.09880412
2014	FRA	32068.86014	0.507700673	1.7	4272.75	1.466632605	639,122,138,096.66	59.88147464
2015	FRA	32684.98408	0.037803733	0.8	4637.060059	1.40647471	540,912,720,416.99	61.4324935
2005	CAN	43854.5432	2.213552034	1.23088609	11272.29981	1.660868883	265,498,432,084.50	27.08676559
2006	CAN	45814.67189	2.002025395	3.117597709	12908.40039	1.792571306	311,292,313,117.07	26.04166926
2007	CAN	47845.27624	2.138383993	2.695919665	13833.09961	1.791605473	351,163,765,012.57	25.29255443
2008	CAN	49718.2905	2.370270674	0.696304001	8987.700195	1.799131632	373,843,486,410.50	27.25761085
2009	CAN	46608.13568	0.299466803	4.800208834	11746.09961	1.805835724	301,860,729,594.96	22.10597533
2010	CAN	48878.62395	1.776871541	- 0.262355298	13443.2002	1.809824109	379,752,475,247.53	22.51740161
2011	CAN	51536.94605	2.912135089	- 0.234448747	11955.09961	1.743252397	433,008,590,197.07	23.7164177
2012	CAN	52452.67856	1.515678231	1.757286718	12433.5	1.763893247	454,750,116,248.00	24.81087877
2013	CAN	53823.52843	0.938291898	1.42391913	13621.59961	1.751065016	452,883,621,516.30	25.6347886
2014	CAN	55510.4092	1.906635907	1.222043739	14632.40039	1.893762589	432,352,285,027.44	25.10745853
2015	CAN	55319.1036	1.125241361	3.34656502	13010	1.835672379	366,391,033,558.68	27.3674143
2005	GER	27899.55288	1.546910755	3.4	5408.259766	1.656370759	538,360,900,385.52	70.42119034
2006	GER	29052.59902	1.577429241	3.8	6596.919922	1.758135319	593,662,024,840.05	77.0821686
2007	GER	30549.90683	2.29834058	4.2	8067.319824	1.749650478	713,766,767,040.79	79.37053115
2008	GER	31198.8427	2.628383067	4	4810.200195	1.720731616	782,744,983,155.12	80.94490464
2009	GER	30039.20268	0.312737723	3.2	5957.430176	1.639746666	617,546,540,705.75	70.66504625
2010	GER	31549.97381	1.103808561	2.7	6914.189941	1.615864754	670,658,278,145.70	79.30307822
2011	GER	33046.41686	2.075172931	2.6	5898.350098	1.607507467	791,980,817,347.79	84.74773595
2012	GER	34253.42629	2.008491182	1.5	7612.390137	1.648283243	684,228,932,414.82	85.87475437
2013	GER	34344.64202	1.504722267	1.6	9552.160156	1.626392126	730,205,530,590.64	84.95729308
2014	GER	36003.45754	0.906797035	1.2	9805.549805	1.852072239	766,572,161,454.30	84.78106521
2015	GER	37167.21667	0.234429945	0.5	10743.00977	1.782266736	647,229,677,276.26	85.9938605
2005	CHN	14258.8746	1.821647757	1.640412667	1161.057007	- 0.485748768	946,189,424,355.96	62.89041723
2006	CHN	16602.08082	1.463189043	2.134746858	2675.474121	- 0.552634835	1,126,536,985,476.71	65.61892316
2007	CHN	20337.08556	4.750296622	- 0.335658386	5261.562988	- 0.451128244	1,472,846,533,026.62	62.6647374
2008	CHN	23912.01483	5.864383723	- 2.316757424	1820.805054	- 0.333125025	1,989,477,168,391.21	56.95747347
2009	CHN	25962.56178	-0.702949137	5.422714247	3277.138916	- 0.321459204	2,373,128,494,891.24	44.50696243
2010	CHN	30567.5018	3.314545929	- 1.054405574	2808.076904	- 0.328696936	2,904,643,811,943.34	48.88930043
2011	CHN	36017.6099	5.410850058	-1.46035162	2199.416992	- 0.392424524	3,611,037,684,748.12	50.59982788
2012	CHN	39544.31155	2.624920936	3.523559633	2269.12793	-	4,043,534,052,564.04	48.10786134

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2013	CHN	43320.12818	2.627118644	3.68272685	2115.978027	- 0.451441377	4,552,646,954,388.46	46.5652359
2014	CHN	46611.75574	1.996847084	4.744581821	3234.677002	- 0.334492922	4,927,523,846,729.83	45.65192435
2015	CHN	49350.78251	1.442555384	4.824974969	3539.181885	- 0.337186575	5,027,222,802,087.51	40.67168168
2005	IND	32275.48659	4.246353323	6.2483375	2872.9	0.159467891	285,965,757,105.82	41.30519008
2006	IND	36956.79501	6.145522388	4.477348229	4049.88	0.18507345	340,464,201,135.92	45.29779299
2007	IND	42274.73351	6.369996746	5.707897396	6469.48	0.1063921	510,003,879,381.13	46.16019743
2008	IND	47032.02473	8.351816444	4.277227228	2893.06	0.090649329	453,625,488,315.77	53.76515452
2009	IND	53351.36322	10.87739112	5.773573851	5353.23	0.023107115	538,067,277,571.10	46.77857648
2010	IND	63234.86996	11.99229692	- 0.596843393	6191.51	- 0.041168302	673,695,293,833.49	49.69053812
2011	IND	70031.40088	8.857845297	4.678690979	4598.21	- 0.110331796	721,493,772,058.47	55.62572359
2012	IND	78754.55773	9.312445605	2.552100659	5975.74	- 0.091318674	699,800,131,024.04	55.75261817
2013	IND	88102.96529	10.90764331	3.826764404	6326.72	-0.08062122	645,809,883,365.65	53.62539958
2014	IND	96412.30882	6.353194544	6.728371652	8369.27	- 0.089238495	696,325,525,687.07	48.79955995
2015	IND	103483.3626	5.872426595	8.924940526	8097.57	- 0.056629803	678,238,233,380.15	42.4120542
2005	BRA	11516.3028	6.86734958	44.63499993	33455	- 0.491244674	153,403,713,440.68	27.08676559
2006	BRA	12634.88319	4.183680532	41.23826936	44473	- 0.417416453	197,342,895,232.84	26.04166926
2007	BRA	14110.38078	3.637027934	35.0255885	63886	- 0.435659945	276,892,814,955.58	25.29255443
2008	BRA	15966.56494	5.663098519	35.36621292	37550	-0.36468631	366,626,676,845.89	27.25761085
2009	BRA	16944.6772	4.886408444	34.79152703	69304	- 0.216889918	313,335,000,500.15	22.10597533
2010	BRA	19564.80374	5.038316946	29.11648358	56754	- 0.001228662	481,563,210,550.25	22.51740161
2011	BRA	21811.8427	6.636198657	32.83419586	60952	- 0.002767353	570,337,159,253.95	23.7164177
2012	BRA	23744.43868	5.40196475	26.7290933	68588	-0.09717916	526,886,488,147.05	24.81087877
2013	BRA	26027.96052	6.201899613	18.63033336	51507	- 0.110318258	535,842,957,191.23	25.6347886
2014	BRA	27597.86496	6.332092342	23.52796681	50007	- 0.084168099	504,305,142,371.44	25.10745853
2015	BRA	28407.03499	9.027239774	33.33192302	43349	- 0.192782074	314,337,972,286.51	27.3674143
2005	IDN	12261761.03	10.45195661	- 0.245732252	1162.63501	- 0.819162428	71699880024	63.98793587
2006	IDN	14564943	13.10941528	1.658151422	1805.522949	- 0.729290128	92601702825	56.65712681
2007	IDN	17007951.42	6.407448459	2.339674091	2745.825928	- 0.675867915	107,709,637,895.20	54.82924998
2008	IDN	21025970.06	9.776585195	- 3.852245026	1355.407959	- 0.657562613	141,926,445,025.92	58.56139963
2009	IDN	23509527.55	4.813524326	5.747952096	2534.355957	- 0.594886661	167,189,927,754.62	45.51212137
2010	IDN	28409603.46	5.1327549	-	3703.511963	-	248,275,877,014.58	46.70127388

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2011	IDN	31991266.11	5.357499604	4.594376749	3821.991943	- 0.607915759	294,539,906,459.99	50.18001318
2012	IDN	34735442.17	4.279511959	7.750188565	4316.687012	- 0.587428153	321,911,604,748.91	49.5828983
2013	IDN	37991799.65	6.413386778	6.374931242	4274.176758	- 0.544045925	308,719,296,468.79	48.63737268
2014	IDN	41523359.8	6.394925408	6.848935726	5226.946777	- 0.346037358	307,827,138,617.85	48.05727115
2015	IDN	44807496.74	6.363121131	8.089383908	4593.007812	- 0.412583739	297,901,960,017.86	41.93771019
2005	MEX	86027.61063	3.988060736	4.066020097	17802.71094	- 0.405404747	192,945,292,212.26	54.57644624
2006	MEX	94456.12228	3.629463226	1.251543658	26448.32031	- 0.461142778	226,913,279,965.50	56.45509563
2007	MEX	100789.5208	3.966849629	2.41663912	29536.83008	- 0.539271712	244,088,389,030.22	57.06475186
2008	MEX	106606.6168	5.124981692	2.5513992	22380.32031	- 0.715723038	269,110,891,039.29	58.071087
2009	MEX	103529.7398	5.297357127	3.416395552	32120.4707	- 0.607015848	205,004,693,454.69	56.03479382
2010	MEX	111973.8346	4.156727837	0.767102752	38550.78906	- 0.581909597	231,836,511,000.32	60.94653478
2011	MEX	120882.1597	3.407379617	- 0.353350571	37077.51953	- 0.559986591	260,706,489,982.53	63.7765201
2012	MEX	128014.937	4.111508546	1.431810039	43705.82813	- 0.557404518	273,523,324,499.79	66.40831903
2013	MEX	130241.762	3.806389823	2.443701202	42727.08984	- 0.568960547	273,389,267,381.77	64.44463256
2014	MEX	137588.2043	4.018617202	- 1.087121844	43145.66016	- 0.446298271	279,610,046,943.77	65.67948615
2015	MEX	142781.4737	2.720641263	0.886402485	42977.5	- 0.469873577	260,003,745,449.04	72.82881637
2005	SZL	68233.90507	1.171971667	2.463672619	7583.899902	1.898550749	97926357453	100.6150981
2006	SZL	71904.08578	1.05877759	1.059852154	8785.700195	1.802072406	107,504,203,461.48	104.9386362
2007	SZL	75893.45072	0.732636421	0.868665923	8484.5	1.836185932	114,920,247,084.31	111.8949761
2008	SZL	78112.69638	2.426637033	1.396370538	5534.5	1.807906985	140,183,435,047.55	115.3650963
2009	SZL	75810.10833	-0.48057991	2.330407468	6545.899902	1.755254865	142,380,919,033.18	107.32209
2010	SZL	77463.60898	0.698510114	2.437693854	6436	1.766327262	139,890,860,293.41	117.7715429
2011	SZL	78146.3173	0.23134621	2.512199235	5936.200195	1.737846971	187,076,065,315.32	123.0764293
2012	SZL	78023.49403	-0.692544621	2.908144239	6822.399902	1.822865963	161,376,822,921.85	124.2433682
2013	SZL	78480.26801	-0.217319662	2.709464897	8203	1.801779151	154,661,544,069.72	132.498414
2014	SZL	78432.46258	-0.013186044	3.424461634	8983.400391	2.015710115	162,186,197,505.93	117.9338099
2015	SZL	77197.15853	-1.143915069	4.023805887	8818.099609	1.96619904	154,503,060,245.71	114.0923462
2005	SAF	34678.48906	3.399299946	4.908467702	18096.54	0.07720492	47,211,013,790.83	53.14910394
2006	SAF	38383.48102	4.641624894	4.603671469	24915.2	0.225850791	54845159861	60.27723209
2007	SAF	43408.24495	7.098419808	3.966380361	28957.97	0.063089348	62859596332	63.68311826
2008	SAF	48057.70024	11.53645077	5.78272573	21509.2	0.034134831	65972861086	72.86538757
2009	SAF	50132.56455	7.13	3.910367979	27666.45	0.092881523	61333301863	55.41826433
2010	SAF	54124.67071	4.26234355	3.274351596	32118.89	0.10778074	73241818281	55.98899275
2011	SAF	58679.97825	4.995510185	2.201760863	31985.67	0.122140318	82121717095	60.11263175

2012	SAF	62314.13348	5.653583003	3.068624022	39250.34	0.087752059	79130694275	60.8974883
2013	SAF	66444.41642	5.445279482	2.372363812	46256.23	0.141368791	77368333834	63.98306864
2014	SAF	70239.77082	6.375259009	3.147081205	49770.6	0.167696506	72892275655	64.08693579
2015	SAF	72619.66233	4.588271042	5.436978496	50693.76	0.055837739	65212988581	62.45246154
2005	SNG	49715.38497	0.425106277	3.00689269	2347.340088	1.763961434	27224885845	422.3304601
2006	SNG	53355.03872	1.020916335	3.531769737	2985.830078	1.627534628	32993202845	430.3576128
2007	SNG	59113.86024	2.095144195	- 0.501595468	3482.300049	1.645531893	41611770951	398.6578055
2008	SNG	56201.31107	6.518590053	6.975659728	1761.560059	1.643187404	58509364619	439.6566811
2009	SNG	56111.05842	0.60362173	1.795752326	2897.620117	1.60406971	53230938467	360.2307242
2010	SNG	63497.75801	2.8	5.428484038	3190.040039	1.683472276	65890135680	372.0993631
2011	SNG	66781.21831	5.252918288	4.222769165	2646.350098	1.725911975	74380664653	374.7024465
2012	SNG	68047.67755	4.528650647	4.615962343	3167.080078	1.783310533	86131871649	367.1354554
2013	SNG	69594.31853	2.378490176	6.123142225	3167.429932	1.754303932	91030128666	361.5913198
2014	SNG	70966.83489	1.01010101	5.304279563	3365.149902	1.894174695	88613369111	359.7734492
2015	SNG	72711.44617	-0.541666667	3.650318758	2882.72998	1.881533384	76961739889	326.1170607
2005	TRKY	9562.714583	10.13840492	13	39777.7	0.157330751	96545686216	47.20687977
2006	TRKY	11038.40863	9.597242123	17.25	39117.46	0.042623896	117,089,235,841.79	50.25095627
2007	TRKY	12129.3599	8.75618091	14.75	55538.13	0.017823217	136,336,614,699.71	49.80711384
2008	TRKY	13512.58709	10.44412838	14	26864.07	0.082914889	159,078,255,320.14	52.24859536
2009	TRKY	13367.12192	6.250976631	6.75	52825.02	0.102633081	91802851686	47.73824172
2010	TRKY	15195.58881	8.566444206	6.25	66004.48	0.117895745	142,744,467,453.31	47.96891989
2011	TRKY	17651.87883	6.471879671	5.75	51266.62	0.078580931	182,507,445,921.51	56.62410414
2012	TRKY	18928.70913	8.891569965	5.50	78208.44	0.043099292	158,817,780,432.71	57.75483545
2013	TRKY	20561.72152	7.493090305	4.50	67801.73	0.084074967	169,940,974,409.95	57.81471052
2014	TRKY	22550.08252	8.854572714	8.25	85721.13	0.036803551	159,846,347,055.18	60.01304994
2015	TRKY	24833.6709	7.670853648	7.50	71726.99	- 0.060295328	129,991,283,847.56	58.80189218
2005	KOR	19107479.1	2.754383872	-0.2	1379.369995	0.966920614	288,868,543,985.27	71.18429245
2006	KOR	19971381.76	2.241725583	1.7	1434.459961	0.839708567	330,864,624,229.09	73.55135
2007	KOR	21467247.02	2.534347678	2.3	1897.130005	1.019462824	365,763,604,977.87	77.24301702
2008	KOR	22564281.49	4.674315076	-3.9	1124.469971	0.852614224	330,917,827,710.93	99.93354412
2009	KOR	23417244.32	2.757000942	5.7	1682.77002	0.977843881	256,741,716,460.57	90.41263765
2010	KOR	25608148.7	2.955862822	-1.7	2051	0.990108788	350,490,155,796.28	95.65409371
2011	KOR	26771715.39	4	4.6	1825.73999	1.022975683	396,317,992,341.55	110.0000525
2012	KOR	27546685.3	2.192307692	7.8	1997.050049	0.978604615	379,085,369,989.17	109.8862207
2013	KOR	28463855.47	1.307866014	6.4	2011.339966	0.947237074	379,959,901,462.56	102.7707529
2014	KOR	29471692.57	1.272406427	6.8	1915.589966	0.980184615	413,194,869,172.72	95.29721597
2015	KOR	30791831.09	0.706162876	8.1	1961.310059	0.9546206	3.92531E+11	84.84284047
2005	PAK	42383.51135	9.06332737	9	7825.115	- 0.880630434	20894375783	35.25329003
2006	PAK	52491.31174	7.921084401	9.5	10699.98333	- 0.837861001	26535887438	35.68172966
2007	PAK	57832.63838	7.598684411	10	12870.75	- 0.877634823	28628810143	32.99042857

2008	PAK	65223.59687	20.28612109	15	11509.77917	-0.974739671	32664881328	35.59420149
2009	PAK	79267.52991	13.64776506	12.5	7659.475	-0.841721177	29509938432	32.07184826
2010	PAK	87430.33079	13.88113926	14	10242.60917	-0.739236593	28038369150	32.86892658
2011	PAK	105236.8114	11.91676947	12	11797.175	-0.909726799	30159882855	32.93990515
2012	PAK	113006.6267	9.68505341	9.5	14571.04167	-0.90092206	33827981325	32.80550221
2013	PAK	123509.4056	7.689503655	10	21123.325	-0.87008512	34584128656	33.33359868
2014	PAK	135470.5922	7.191671165	9.5	28953.43333	-0.77980125	35762880042	30.90124462
2015	PAK	144945.0325	2.539515909	6.5	33536.39	-0.788428545	41956347066	27.60429206
2005	JAP	3943736.157	-0.273110982	2.965167285	16111.43	1.240397215	1,027,131,635,247.17	27.21757957
2006	JAP	3963012.499	0.2406639	2.817865977	17225.83	1.352897286	988,138,363,687.49	31.08646956
2007	JAP	4007587.441	0.057951817	2.840427374	15307.78	1.327639103	996,888,415,206.34	33.80276473
2008	JAP	3913771.347	1.373489988	3.215382464	8859.56	1.319467902	1,114,189,793,874.78	35.22831679
2009	JAP	3679420.057	-1.346718903	2.234797054	10546.44	1.297135592	990,174,211,633.85	25.02483876
2010	JAP	3768852.19	-0.719781584	3.841931309	10228.92	1.325760841	1,089,376,953,038.22	29.19016841
2011	JAP	3689475.406	-0.283333333	3.417701329	8455.35	1.295517802	1,193,177,290,212.64	31.20104873
2012	JAP	3726294.697	-0.033428046	2.359605798	10395.18	1.333337069	1,242,770,197,033.68	31.37659449
2013	JAP	3762281.201	0.35947166	1.874018721	16291.31	1.420130134	1,041,943,891,712.03	35.22010872
2014	JAP	3830188.828	2.748854644	-0.444959293	17450.77	1.598576188	1,002,789,367,848.90	38.59669839
2015	JAP	3931172.864	0.786380219	..	19033.71	1.511390209	907,583,826,456.55	36.77593295
2005	NZ	39414.59639	3.037020739	5.698296604	3370.51001	1.847737789	29162852918	58.01971326
2006	NZ	41129.14018	3.365404493	5.422725118	4055.469971	1.789780974	26500875430	59.56690237
2007	NZ	44235.99602	2.37614328	2.912735425	4041.379883	1.828041077	33989858161	58.37168975
2008	NZ	44512.88793	3.958944282	5.940477498	2715.709961	1.852475643	30226330217	64.33739769
2009	NZ	45146.88793	2.115655853	3.553163547	3230.149902	1.936274171	23852832782	55.16218874
2010	NZ	46757.99297	2.302025783	2.850439158	3309.030029	1.868650198	29437959360	58.22641695
2011	NZ	48640.51095	4.432943294	3.952278374	3274.709961	1.90762198	34439879918	59.18073532
2012	NZ	49453.50605	0.883430295	6.347885757	4066.51001	1.888392687	37117075815	56.88911723
2013	NZ	52346.86297	1.302862025	0.499152389	4737.009766	1.871443868	41156857321	56.04481142
2014	NZ	53498.01539	0.906599199	5.211159486	5568.279785	2.017012119	45317829565	55.23501617
2015	NZ	54215.67987	0.229837025	5.884333026	6324.259766	2.020877361
2005	MAL	21072.08044	2.960865088	-2.672968811	975.6	0.573896587	32146497320	203.8544606
2006	MAL	22723.29548	3.609235642	2.40917258	1096.61	0.531805754	36936644676	202.5776539
2007	MAL	24890.56833	2.027353178	1.456565344	1447.04	0.495819509	45308936467	192.4661076
2008	MAL	28309.59805	5.440782211	-3.903257124	1516.22	0.379079491	49528911865	176.6685921
2009	MAL	25771.1733	0.583308406	11.78209182	1279.95	0.487014383	36074113094	162.5590474
2010	MAL	29212.2904	1.710037175	-2.112391945	1528.01	0.526669681	59638943218	157.9450084
2011	MAL	31908.93351	3.2	-0.471868628	1594.74	0.523158252	69090196078	154.9377943
2012	MAL	33466.09496	1.655361757	3.748526193	1688.95	0.504085958	80964775965	147.841804

2013	MAL	34576.8925	2.105012312	4.428648075	1872.52	0.471053481	83878257006	142.7211316
2014	MAL	37006.89288	3.142990509	2.062910988	1892.65	0.640487909	84573314186	138.3094465
2015	MAL	38141.76034	2.104389802	4.992483787	1862.8	0.574284315	74328767123	134.1550762
2005	SPN	21317.2679	3.369714479	2.25	10733.88951	1.097162247	347,364,755,627.41	54.33510358
2006	SPN	22703.48802	3.515804737	3.5	14146.48567	1.096758008	395,755,865,010.66	55.65927296
2007	SPN	23897.4884	2.786703534	4	15182.28442	1.129535794	463,558,718,861.21	57.40645647
2008	SPN	24289.6032	4.075721828	2.5	9195.790487	1.166415334	483,890,435,037.35	55.75883326
2009	SPN	23273.6289	-0.287977653	1	11939.9879	1.132894158	368,259,238,677.41	46.49797875
2010	SPN	23207.06336	1.799740168	1	9859.089619	1.15826571	337,150,993,377.48	52.34463828
2011	SPN	22900.11208	3.196242972	1	8566.291125	1.17639935	325,975,813,177.65	58.08804639
2012	SPN	22296.42686	2.445914628	0.75	8167.491724	1.053011656	271,087,928,279.24	59.75565554
2013	SPN	22120.78517	1.408628285	0.25	9916.690147	1.006315708	262,131,837,144.67	60.70425649
2014	SPN	22399.74706	-0.14703181	0.05	10279.48958	0.936970949	273,203,665,405.52	62.59585462
2015	SPN	23292.33776	-0.501190518	0.05	9544.190524	0.896967769	247,701,009,204.84	63.80580656
2005	PLPN	65911.99587	6.516853933	4.116958779	2412.5	- 0.356676906	22212345169	97.87854923
2006	PLPN	71594.35961	5.485232068	4.601887334	1983.07	- 0.413593471	22008992334	94.94082587
2007	PLPN	77476.3331	2.9	5.433189672	3873.5	- 0.477001756	25895044043	86.6194089
2008	PLPN	85505.53613	8.260447036	1.117651519	3617.29	- 0.563868046	33598859259	76.28226657
2009	PLPN	87581.60699	4.219030521	5.636603046	3119.96	- 0.598299861	27929336109	65.59038464
2010	PLPN	96771.13315	3.789836348	3.310495797	4397.3	- 0.583839178	40997390701	71.41949127
2011	PLPN	102732.3294	4.647302905	2.539402681	4550.53	- 0.538985491	45873673937	67.69791655
2012	PLPN	109991.4972	3.172085646	3.639468291	5832.83	- 0.537728429	45525863865	64.89944361
2013	PLPN	118295.457	2.997694081	3.603501406	7392.2	-0.41917181	54410763091	60.24528933
2014	PLPN	127525.7521	4.104477612	2.248665252	7360.75	- 0.328092903	58467535995	61.2633898
2015	PLPN	131929.6934	1.433691756	6.305392751	8127.48	- 0.345095426	60104336208	63.03549254
2005	HUNG	2226534.676	3.550808314	5.972929464	20784.74	0.8260535	28664396929	127.8585295
2006	HUNG	2396777.201	3.878312373	4.38666295	24844.32	0.962626398	29558239460	149.6942287
2007	HUNG	2539697.666	7.935008875	3.545833306	26235.63	0.920392752	33757042856	155.9277053
2008	HUNG	2693525.465	6.066157153	4.944753906	12241.69	0.892237425	38910978989	158.9195396
2009	HUNG	2619935.845	4.209189843	6.833506908	21227.01	0.758864164	26434471985	145.4816504
2010	HUNG	2705163.278	4.881345076	5.209260336	21327.07	0.747602463	26980653073	159.1635759
2011	HUNG	2821359.43	3.920735315	5.984487094	16974.24	0.744783461	28723006143	168.2130532
2012	HUNG	2885770.6	5.667639606	5.311233912	18173.2	0.604356468	24812108468	166.8245808
2013	HUNG	3038992.803	1.721102477	3.13542583	18564.08306	0.572680831	28390791032	164.9966447
2014	HUNG	3261518.306	-0.222315061	1.1673418	16634.00044	0.49717474	31835575841	170.3687526
2015	HUNG	3424369.249	-0.070282476	1.112430873	23920.64571	0.404108435	26430118228	172.5429198

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