Nova Economics Club

Publication #2 – October 2015

Robert A. Mundell Edition

Contents:

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NEC Master Projects
Fall 2015

Budgetary rules: its role as a restraint of fiscal policy? – Portuguese Public Finance Council

The project aims to study the various budgetary rules regarding the Portuguese case, at national and community levels, and how they delimit the field of action of policymakers and consequently the evolution of public policy in the country.

Coordinator: Prof. Pedro Brinca

Members: Arecida Zabel, Bien Balocating, Carlos Gonçalves and Marli Fernandes

Potential GDP: an effective anchor for the development of sustainable and predictable public policy? - Portuguese Public Finance Council

The project will analyse the advantages and disadvantages of using unobservable variables in the formulation of public policies, which will be relevant for the understanding, analysis and discussion of budgetary rules that are based on structural fiscal aggregates (defined by using estimates of potential output).

Coordinator: Prof. Pedro Brinca

Members: António Santos, Henrique Barros, Matteo Ruzzante and Rodrigo Ferreira

Over-indebted families in Portugal - Portuguese Association for Consumer Protection

Using a very detailed micro-level data from the Portuguese Association for Consumer Protection on over-indebted families who seek the help of the association, the project will permit to study the determinants of the over-indebtedness status, compare between the spending patterns of these families and those of the representative families sampled in the National Institute of Statistics' household budget survey and the evolution of the share of the family income used to repay interest on outstanding debt.

Coordinator: Prof. Susana Peralta

Members: Ana Isabel Costa, Guilherme Fernandes, João Pereira dos Santos, José Eduardo Matos, Pauline Mauclet, Rafael Longo and Stefania Selliti

The degree of progressivity of income taxes in OECD countries – OECD

The work is divided in two parts: the first step will be to compute a gini-based progressivity in order to obtain the progressivity index for a set of OECD countries in each year; the second step will perform a thourough analysis of tax reforms in the countries under consideration, to link changes in progressivity to tax reforms whenever possible.

Coordinator: Francesco Franco

Members: Birgitte Ringstad, Carlos Figueira and Miguel Costa Matos

Deleveraging of the private sector in Portugal – European Commission

The project aims to analyse and understand the factors that are precluding a reduction of the debt in the corporate sector in Portugal and identify the necessary changes that will permit the deleveraging.

Coordinator: Francesco Franco

Members: Ana Pardal, Annika Hofmann, Cristina de Melo, Luis Aguiar, Mónica Simões and Will Troy

October in Review

1st China's purchasing manager's index came in at 49.8 in September, a contraction for second consecutive month which rises the expectations of another rate cut from the central bank.

2nd Eurostat: In August 2015, compared with July 2015, industrial producer prices fell by 0,8% in the euro area, influenced by the decline of 2,6% on the energy sector prices.

US economy added 142000 jobs in September, fewer than expected. The unemployment rate came in at 5,1%.

4th Portugal's ruling centre-right coalition "Portugal Ahead" won the general election with 38.6 percent of the vote but lost the absolute majority in parliament, indicating politically challenging times for the country.

12th Angus Deaton received the 2015 Nobel Economics Prize for his analysis of consumption, poverty, and welfare.

Opec's latests forecasts shows a slowdown in US shale production, which will drive demand for Opec crude next year and give needed stability to the oil market.

14th The unemployment rate in the UK fell to 5.4% in Q2/15, the lowest level since Q2/08.

15th Fitch cut the 'rating' of Brazil one level, from 'BBB' to 'BBB-,' one level above 'junk'.

16th Consumer prices fell in September in the euro area. The inflation rate fell 0.1%, compared with the rise recorded in August of 0.1%.

17th The Greek parliament approved an economic reform package that enables creditors to disburse more funds from a €86 billion third international bailout.

19th Despite negative forecasts, the Chinese economy expanded quicker than previewed in Q3/15 as the services sector offset a weaker performance in the manufacturing sector.

Capital outflows from China topped $500bn in the first eight months of 2015. The US Treasury reassessed its previous outlook for the RMB from being "significantly undervalued" to "below its appropriate medium-term valuation".

Spain's Q3 unemployment rate fell to 21,2%. The number of unemployed people is now below 5 million, the lowest value since 2011.

20th The Liberal Party led by Justin Trudeau won the Canadian federal elections with 39,5% of the vote, obtaining the majority of the parliament with 184 seats.

22nd The ECB kept reference interest rates at 0,05% and signaled that may increase monetary stimulus to the European economy, due to the rising concerns over negative inflation.

23rd The central bank of China cut the reference interest rate from 4,6% to 4,35% and the deposits rate from 1,75% to 1,5%. Minimum reserves requirements for the Chinese banks were also reduced by 50 basis-points.

27th Portugal increased resources productivity by 36,6%, between 2014 and 2002, but it is still below the average European productivity.

28th Ultraconservative right party won the general elections in Poland, with 37,58% of the vote, an absolute majority.

29th China abolished one child policy, allowing every couple to have a second child.

The unemployment rate in Portugal decreased to 12,2% in September but the employment level also decreased.

30th The Chinese currency registered the highest appreciation in 10 years, since the currency is no longer pegged to the dollar exchange rate. Beijing took measures for the currency to have the conditions to be in the FMI reserve, allowing Chinese investors to invest in foreign assets.

NEC Recommends

Articles and trends to watch

The Courage to Act in 2008 – Macro and other Market Musings

Following Ben Bernanke's book "The courage to act", David Beckworth revises the monetary policies adopted by the FED in 2008, claiming that if the FED had had the courage to act in 2008 "the economy would be in a very different place today". Read more here.

The Macro-Micro Conflict - Voxeu

"Microeconomic policy reigns supreme during good times, and macro during bad. This column explains that while the macro and micro objectives have always been present in regulatory design, their relative importance has varied according to the changing requirements of economic, financial and political cycles."

China is not collapsing – Project Syndicate

Anatole Kaletsky discusses the deceleration of the Chinese economy and the inaccurate expectations created by financial markets. "It would be ironic if China's Communist leaders turned out to have a better understanding of capitalism's reflexive interactions among finance, the real economy, and government than Western devotees of free markets". Read more here.

Risk-sharing and the effectiveness of the ECB's quantitative easing programme - Voxeu

"Will the risk-sharing arrangements within the ECB's quantitative easing programme reduce its effectiveness? The views of leading UK-based macroeconomists are exactly evenly divided on this question, according to the latest survey by the Centre for Macroeconomics. The responses reported in this column suggest that this divergence reflects differences in views about the channels through which quantitative easing operates."

The End of German Hegemony – Project Syndicate

With economic and financial stability retuning to Europe, Germany's dominant position has been gradually weakening. In Daniel Gros' opinion, this movement will become more apparent as the economic growth in Germany returns to its pre-crisis trend, lagging behind countries like France, Italy and Spain. Read more here.

The Japan Syndrome Comes to China – Project Syndicate

Jeffrey D. Sachs defended the idea that the renminbi remains overvalued and further depreciation is "necessary if China is to bolster its flagging economic growth and avoid a long-term "Japan trap"". The consequent boost in exports could find its way to Africa and Asia, particularly in the form of infrastructure equipment and machinery. Read more here.

Short-term Talk, Long-term Costs – Project Syndicate

"The idea that financial markets are too focused on the short term is gaining ground in the media and among academics." This article discusses the implications of the short-term investments and returns.

""Short term" need not connote something pernicious. It can mean flexibility and adaptability."

Are sanctions helping Russia? – Project Syndicate

The economic sanctions imposed on Russia are strengthening President Vladimir Putin's position. Russia may be facing an important opportunity to pursue the structural transformation of its economy that would trigger import substitution, increase productivity and boost domestic demand. "Another economic miracle is possible". Read more here.

Union Power and Inequality - Voxeu

"Inequality in advanced economies has risen considerably since the 1980s, largely driven by the increase of top earners' income shares. This column revisits the drivers of inequality, emphasising the role played by changes in labour market institutions. It argues that the decline in union density has been strongly associated with the rise of top income inequality and discusses the multiple channels through which unionisation matters for income distribution."

Sovereign Wealth Funds in the New Era of Oil – iMFdirect

Rabah arezki, Adnan Mazarei and Ananthakrishnan Prasad analyse the future of sovereign wealth funds in an environment of low oil prices and its impact on global asset prices. Read more here.

Financial Transactions Taxes: FTT? – Money and Banking

"Unless it shifts all trading to an untaxed venue, an FTT will reduce trading in the securities that are taxed, and in that way curtail HFT. But, will it raise substantial revenue? Will it channel resources to more socially productive uses? And, will it (as some advocates claim) reduce market volatility?". After Hillary Clinton and Bernie Sanders' proposals for the introduction of an FFT, this article tries to answer some of this questions.

TPP done, TTIP almost

NEC Articles

Representing 40 per cent of the global economy, the US, Japan, and ten other Pacific Rim countries – i.e. Canada, Vietnam, Brunei, Malaysia, Singapore, Australia, New Zealand, Mexico, Peru, and Chile – reached on 5 October 2015 an agreement on the Trans-Pacific Partnership (TPP), the biggest trade deal signed in two decades.

Negotiations lasted for five years – as of today, however, the TPP's 30-chapter text is not yet available. After all, there is by law a period of thirty days between the announcement of the deal and the publication of the text.

Now, the TTP faces months of scrutiny in Congress (perhaps until April), which has an up-or-down vote. That is, although it can approve or reject the deal, Congress does not have the legitimacy to approve with reservation or under conditions – until then, the TPP will consume most of the US trade policy's oxygen.

Meanwhile, this implies that the EU Trade Commissioner must make a call for action on the Transatlantic Trade and Investment Partnership

(TTIP) negotiations to the US Trade Representative partner.

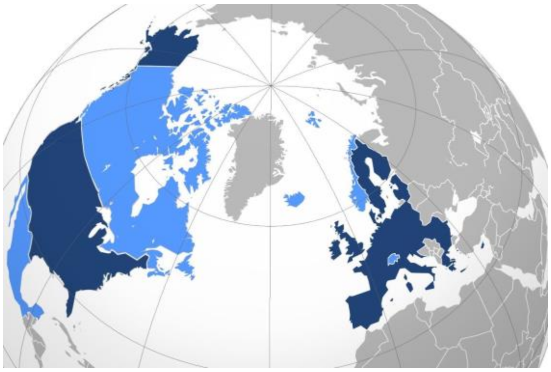
> "the EU Trade Commissioner must make a call for action on the Transatlantic Trade and Investment Partnership (TTIP) negotiations"

On December 2014 at a EU Summit, leaders pledge to conclude negotiations on a trade deal with the US by the end of 2015. However, neither side wants to reach anything less than a comprehensive economic agreement – so much so that the EU Trade Chief Cecilia Malmström recently acknowledged that negotiations on a landmark EU-US free trade deal will drag on until mid-2016.

This year, on the 14th of September, the European Commission launched a new trade and investment strategy for the European Union ("Trade for All"), which is a more responsible response to new economic realities in line with the EU's foreign policy.

The new approach is also a direct response to the current debate on trade in the EU - including TTIP. Also, it is an implementation of the Juncker Commission's pledge to listen and respond to EU citizens' concerns.

The 11th round of TTIP negotiations will take place in Miami, Florida, from October 19 to 23. Both sides are expected to exchange follow-up tariff offers at the meeting and, otherwise, cover the range of issues, including investor-state settlement. That issue had been delayed for nearly a year while the European Commission held consultations with the public and stakeholders.



Source: European Trade Union Committee for Education

The EU will also be insisting on some difficult topics for the United States, e.g. opening more state and local government procurement opportunities to European firms. However, the most illogical US stance is perhaps the continued intransigence over the exclusion of financial services from the TTIP deal so as to avoid the regulatory landscape becoming unnecessarily complicated.

Diana Correia

NEC Alumni

Previous position: Economist Adviser, Secretary of State for European Affairs

Catalonia: the Iceberg's Tip of a Major European Problem

NEC Articles

It is difficult to perceive the full extent of the recent events in Catalonia, mainly due to the different existing political, economic, and social realities. Either way, these events are ultimately related to a deeper issue that is inadequately addressed by the media.

Catalonia's claims for independence exposed, once again, the profound fragilities of European integration. Following Catalonia's example, other European regions, e.g. Basque Country (Spain), Veneto (Italy), Scotland (United Kingdom), Bavaria (Germany), and Flanders (Belgium), are now calling for independence. Yet, there is something that further unites these territories – namely, that they are relatively more prosperous than the rest of their country.

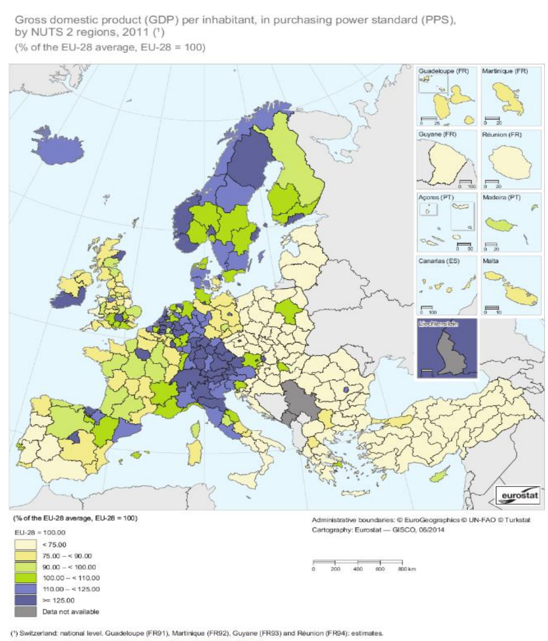
The competition framework within the EU has led to regional economies of scale, such that more developed and productive regions have gained competitive advantage. In contrast, most of the industries present in less industrialized regions – who were in their early development stage before EU entry – have been unable to achieve the required level of productivity to compete with the rest of Europe and accordingly failed. Moreover, the EU established a market that benefits regions that are closer to its core, triggering reallocation by several companies seeking to achieve lower transportation costs and be closer to their customers – an effect known as trade diversion. Coupled with increased economies of scale, industrialized regions are now substantially less dependent on their traditional national markets.

> "several economists have argued that the accumulated welfare losses of poorer regions were exceeded by the gains of richer ones"

All things considered, several economists have argued that the accumulated welfare losses of poorer regions were exceeded by the gains of richer ones, further justifying that industries from richer regions should survive because they were more efficient in the pre-EU period. Ironically, the fact of the matter is that these economists seem to forget that, at the time, the majority of these "efficient" industries were protected by their governments.

In the current context of international competition and a subsequent lack of adequate development policies, permanent job losses will continue to contribute towards the underdevelopment of these less efficient regions, as their social expenditures increase. These areas will continue to struggle due to a lack of crucial financial resources, and the remaining regions will further become unwilling to compensate for such losses. All of this is aggravated by low labor mobility – less qualified workers tend to stay within their regions, unemployed or working for lower wages – and by the migration of highly qualified workers from the less to more developed regions in Europe.

As it stands, it is possible that the systematic "losers" of this Economic Union will refuse to accept their disadvantageous position, thus leading to a division of the European Union into different economic regions. The EU needs to face reality and find a definitive solution towards reasonable integration – the time has come for a more complete Union.



Source: Eurostat

Carlos Moreno
NEC External Collaborator

ETF HY

NIC UD

Facing news of investors' rush for high yield (HY) passive investment solutions, one can start speculating on the risks this move can have to the HY market.

This story starts with the low interest rates' environment and its impact on shrinking the returns across asset classes. Investment Grade (IG) bonds, which previously allowed for a good return, fell out of fashion as they no longer provided attractive yields (e.g. earlier this year, Nestle's four year bond prices began to imply a negative yield to maturity).

Investor's search for yield forced them to move along the risk-spectrum, entering the "junk" bond market, also known as High Yield (HY) market. One of the reasons investor's were now willing to borrow to issuers rated as "junk" by at least two out of the three rating agencies was the cheap diversification allowed by the advent of ETFs on High Yield bonds.

With several postpones of rate hikes by the Federal Reserve, these low returns seemed to be here to stay. Even today, market's implied probability of a

Fed rate hike this year is below 40%, compared to the July's 60%, showing the fade of a possible US rate hike this year. This recent change in expectations pushed several investors back into the HY bond market (according to BAML, in the week to October 23, High Yield bond inflows were at the highest in eight months).

According to some people, including the legendary investor Carl Icahn, the move towards HY ETFs hides a big risk, as those investors are eluded with the idea of a diversified liquid product of a big well-known investment firm, when in fact the underlying lacks liquidity, especially if we consider the squeeze in bond dealer inventories due to the big reduction in the amount of capital that trading desks are allowed to commit to trading fixed-income securities, as a consequence of regulation after the crisis.

In case of a sell-off, investors might suddenly close their positions of HY ETFs, prompting passive investment firms such as Blackrock or Vanguard to flood the sell side of the HY fixed income market, leading to sudden fall in prices for the least liquid fixed income securities.

A sell-off situation can happen in a rate hike scenario – 64% probability by March 2016 -, in which investors will see a lower premium for the extra risk they are taking in with junk-bond ETFs – lower sharpe ratio – shifting part of their portfolios to lower risk solutions. This wouldn't be a problem if the size of the market wouldn't be as big as it is today (almost US$3 trillion). The relevance of ETFs on the debt markets has increased a lot in recent years, ignoring the liquidity issues. In 2014 the net inflows into ETFs was a record of $339,7bn. The first 9 months this year we saw $251bn being injected in ETFs, pointing towards a new record this

Source: Markit

It is not the first time questions are raised on the liquidity of the ETF market. This summer when Chinese equities were suspended, several China trackers were not, suffering big swings, but showing the market could provide liquidity even in a market stress period. Also in the summer, with the Greek crisis and the close of its exchange, some Greek trackers were suspended and some others weren't.

This week, another liquidity issue in the ETF market happened with the world's biggest leveraged ETFs, three Nomura funds tracking Nikkei 225, based on the futures market. The bank decided to suspend the tracker because of the size the fund got compared to the liquidity available on the futures market. Although the liquidity of the market is the same as before, the share of the market held by the ETF increased too much - around 23% of market-wide open interest - leading to liquidity issues from the firm. This situation reflects what can happen on a HY ETF market crisis: a lack of liquidity on the underlying market of the ETF.

Both situations show that, either on a more stressed or on a more upbeat market, ETFs may face liquidity constraints that may raise doubts on its own definition. Its risks and underlying should never be hidden behind the name of an ETF provider.

NIC UD

Robert A. Mundell

Economist of the Month - October

Born on 24 October 1932, Robert Alexander Mundell has been a professor of Economics at Columbia University since 1974. He earned is BA in Economics at the University of British Columbia, in Canada; after studying at the London School of Economics and Political Science, he received his PhD at M.I.T. in 1956. Later, he became a postdoctoral fellow in Political Economy at the University of Chicago from 1956 to 1957. In 1999, Mundell received Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.

Robert Mundell is known as the "father" of the euro for his pioneer work in monetary dynamics and optimum currency areas (OCA). By responding to an unconventional question, i.e. "on what economic criteria could the decision by various regions of the world to adopt a common currency be based?", he developed a cost-benefit analysis of the monetary union. Specifically, Mundell concluded that benefits of adopting a common currency included the reduction of transaction costs generated by the existence of various currencies, as well as an increase in the liquidity of the currency due to the expansion of the transactions area from which all financial markets would benefit. On the other hand, the cost would be the end of independent monetary policy, which is necessary means to absorb shocks asymmetrically affecting the various regions of the monetary union.

Moreover, Mundell established four necessary criteria to meet OCA: labor mobility across the region; similar business cycles; openness with capital mobility, price, and wage flexibility across the region, and; a risk sharing system. Taking this into consideration, the euro cannot be seen as a failure of OCA, as member countries did not fully meet the criteria.

Many economists, especially those that identify with Keynesian and Post-Keynesian views, criticize the notion of OCA when applied to a region larger than a state. Detractors emphasize the importance of deficit-spending when fighting high unemployment during a liquidity trap and that, provided states in a monetary union are not allowed to run large deficits, such stimulus may be impossible.

Last but not least, Mundell eloquently addresses the allure of economics in the preface of his book "Man and Economics" (1968):

"***Economics is the science of choice: It keeps cropping up all over the place. There is an economics of money and trade, of production and consumption, of distribution, and development. There is also an economics of welfare, manners, language, industry, music and art. There is an economics of war and an economics of power. There is even an economics of love. Economics seems to apply to every nook and cranny of human experience. It is an aspect of all conscious action. Whenever decisions are made, the law of economy is called into play. Whenever alternatives exist, life takes on an economic aspect. It has always been so. But how can it be? It can be because economics is more than just the most developed of the sciences of control. It is a way of looking at things, an ordering principle, a complete part of everything. It is a system of thought, a life game, an element of pure knowledge***".

NEC Events

Wanted: a British idea of Europe

November 16th, 18h00, Room A102 – Registration on Facebook

Guests:

Alexandra Abreu Loureiro has worked for the BBC World Service in London, the International Herald Tribune in Paris, CNN en Español as well as award-winning broadcasting on Portuguese television. She has been a regular commentator on foreign affairs in the national press. She served as Head of Communications for the Ministry of Defense of Portugal and for the State Secretary of Foreign Affairs and Development Aid. Alexandra holds a BA (Honors) from the European Business School in London. She has been awarded the National Defense Merit Award.

Peter Abbott has been Deputy Head of Mission at the British Embassy in Lisbon since March 2014. Before being posted to Portugal, Peter covered West Africa with a particular focus on Mali and the Sahel. Prior to this, he led the Government's review of the UK counter-radicalisation strategy, Prevent, based in the Office for Security and Counter-terrorism at the Home Office. This followed a posting to the British Embassy in Washington where he was Private Secretary to the Ambassador.

Prof. José Conde Rodrigues is currently the President of the Portuguese Council of the European Movement. He works as consultant at the RA & Associados, a Lisbon lawyers firm and he is a Professor of Tax, Regulation and Financial Markets at the ISCTE Business School. Prof. Conde Rodrigues is a former member of the Portuguese Government in the fields of Culture, Justice and Home Affaires.

Moderator:

Prof. Jorge Braga de Macedo holds a MA in International Relations and a PhD in Economics from Yale University. He is Professor of Economics and Director of Center Globalization and Governance (CG&G) at Nova SBE, and an associated researcher in NBER and CEPR. His past public service includes experiences in several international organizations (OECD, European Commission) and he worked as a consultant for the European Bank for Reconstruction and Development, the World Bank, and the International Monetary Fund. Prof. Braga de Macedo was Minister of Finance from 1991 to 1993.

Upcoming Events

UECE Lisbon Meeting in Game Theory and Applications 2015
7th edition of the UECE LISBON MEETINGS
5th - 7th November, 16h00, ISEG
The conference will include contributed sessions on all topics, and from all perspectives, of game theory, including applications and experimental work.

Matemática, Cultura e Criação
1st conference of the month of Science
11th November, 16h00, TAGV Coimbra
The relation between mathematics logic and the intuition, creativity and beauty associated with it.

Cultura Científica em Portugal
3rd conference of the month of Science
23rd November, 18h30, TAGV Museu da Ciência
Exposition of a study which goal was to map several initiatives that occurred in Portugal during the last two decades, aiming at promoting science and technological culture.

Douturamento em Sociologia Económica e das Organizações
24th November, 14h30, ISEG (Quelhas Building), Auditorium 2
PhD Thesis: “A Integração Étnica em Angola como Fator de Estabilidade do Processo Político e de Desenvolvimento Socioeconómico: Estudo de Caso da Província de Huíla”.

NEC Statistics

Economic Overview

Portugal		Month			2014		2015		Overview (2010 – 2015)	
Indicator	**Unit**	**JUL**	**AUG**	**SEP**	**Q3**	**Q4**	**Q1**	**Q2**	**Min**	**Max**
GDP	YoY, %	-	-	-	1,2	0,6	1,6	1,6	-4,5 (2012/Q4)	2,5 (2010/Q2)
Unemployment Rate	%	12,3	12,3	12,2	13,1	13,5	13,7	11,9	10,6 (2010/Q1)	17,5 (2013/M1)
Employment Rate	YoY, %	1,1	0,1	-	2,1	0,5	1,1	1,5	-5 (2013/Q1)	2,1 (2014/Q3)
Personal Saving Rate	% of avg. income	-	-	-	7,9	8,2	6,9	6,8	6,8 (2015/Q2)	10,6 (2010/Q1)
Exports	YoY, %	-	-	-	3,8	5,7	7,0	7,4	0 (2012/Q4)	10,3 (2010/Q1)
Imports	YoY, %	-	-	-	6,0	8,5	7,1	11,9	-12,4 (2011/Q4)	13,0 (2010/Q2)
Coverage Rate (Exp/Imp)	% of imports	-	-	-	96,5	97,7	96,1	94,7	76,5 (2010/Q2)	101,4 (2013/Q1)
Consumer Confidence Index	Long-term avg. = 100	100,7	100,8	100,9	100,5	100,7	100,7	100,8	96,6 (2012/M11)	100,9 (2015/M9)
Business Confidence Index	Long-term avg. = 100	100,7	100,6	100,4	100,3	100,5	100,8	100,6	97,5 (2012/M10)	100,8 (2015/M4)
Economic Activity Indicator	YoY, %	0,8	0,8	0,7	0,5	-0,2	0,3	0,8	-4,5 (2012/M1)	1,7 (2010/M5)
Industrial Production Index	Avg. 2010 = 100	103,6	82,7	-	92,4	93,7	96,5	99,6	79,6 (2013/M8)	105,3 (2011/M3)
Consumer Price Index	YoY, %	0,7	0,7	-	-0,3	0	0	0,8	-0,7 (2014/M7)	4 (2011/M4)
Loans to Individuals	YoY, %	-3,2	-3,1	-	-3,5	-3,5	3,5	-3,3	-4,3 (2013/M4)	4,1 (2012/M4)
Loans to Enterprises	YoY,%	-10,2	-9,7	-	-8,4	-9,5	-13,0	-11,1	-13,5 (2014/M12)	0,2 (2011/M4)
Private Consumption	YoY, %	-	-	-	2,9	2,0	2,5	3,2	-6,1 (2011/Q4)	3,4 (2010/Q2)
Public Consumption	YoY, %	-	-	-	0,1	-1,3	-0,5	0,6	-3,9 (2011/Q3)	0,7 (2010/Q1)
Gross Fixed Capital Formation	YoY, %	-	-	-	3,5	2,8	8,8	5,1	-19,3 (2012/Q2)	8,8 (2015/Q1)

Euro Area		Month			2014	2015			Overview (2010 – 2015)	
Indicator	**Unit**	**JUL**	**AUG**	**SEP**	**Q4**	**Q1**	**Q2**	**Q3**	**Min**	**Max**
GDP	YoY, %	-	-	-	0,9	1,2	1,5	-	-1,1 (2013/Q1)	2,9 (2011/Q1)
Consumer Confidence Index	Long-term avg. = 100	100,9	100,8	100,8	100, 2	100, 9	100,1	100,8	97,7 (2012/M11)	101,2 (2015/M3)
Business Confidence Index	Long-term avg. = 100	100,4	100,4	100,5	100,2	100,3	100,4	100,8	98,8 (2012/M10)	101,7 (2011/M2)
Unemployment Rate	%	11	11	-	11,5	11,2	11,1	-	9,9 (2011/M4)	12,1 (2013/M3)
Net Exports	YoY, %	-	-	-	-0,4	-2,4	4,9	-	-2,4 (2015/Q1)	222,8 (2010/Q1)
Consumer Price Index	YoY	0,2	0,1	-0,1	0,17	-0,33	0,17	0,07	-0,6 (2015/M1)	3 (2011/M9)

USA		Month			2014	2015			Overview (2010 – 2015)	
Indicator	**Unit**	**JUL**	**AUG**	**SEP**	**Q4**	**Q1**	**Q2**	**Q3**	**Min**	**Max**
GDP	YoY, %	-	-	-	2,5	2,9	2,7	1,5	-1,5 (2011/Q1)	4,6 (2014/Q2)
Consumer Confidence Index	Long-term avg. = 100	100,8	100,6	100,2	100,4	101,1	100,9	100,5	96,8 (2011/M9)	101,1 (2015/M2)
Business Confidence Index	Long-term avg. = 100	99,9	99,6	99,4	100,8	100,7	99,9	99,9	99,4 (2015/M9)	101,7 (2015/M2)
Unemployment Rate	%	5,3	5,1	5,1	5,7	5,6	5,4	5,2	5,1 (2015/M9)	9,9 (2010/M4)
Net Exports	YoY, %	1,0	17,1	-	9,6	4,3	-3,2	-	-25,3 (2013/M4)	76,6 (2010/M6)
Consumer Price Index	YoY, %	0,2	0,2	0	1,2	-0,1	0	0,1	-0,1 (2015/M1)	3,9 (2011/M9)

China		Month			2014	2015			Overview (2010 – 2015)	
Indicator	**Unit**	**JUL**	**AUG**	**SEP**	**Q4**	**Q1**	**Q2**	**Q3**	**Min**	**Max**
GDP	YoY, %	-	-	-	7.3	7,0	7,0	6.9	6.9 (2015/Q3)	9.7 (2011/Q3)
Consumer Confidence Index	Long-term avg. = 100	97,9	-	-	97,7	98,1	99,2	-	94.7 (2013/M7)	99.4 (2010/M6)
Business Confidence Index	Long-term avg. = 100	98.7	98.5	-	99.3	98.9	98.6	98.7	98.5 (2012/M9)	101.3 (2010/M1)
Unemployment Rate	%	-	-	-	4.1	4.1	4.1	4.0	4 (2015/Q3)	4.1 (2015/Q4)
Net Exports	% GDP	-	-	-	6.2	1.6	7.6	7.2	1.0 (2014/Q1)	4.1 (2014/Q3)
Consumer Price Index	YoY, %	1.6	2	1.6	1.5	1.2	1.4	1.7	0.8 (2015/M1)	6.5 (2011/M7)

NEC Statistics

Financial Markets Overview

Currency Pairs		Month			2014	2015			Overview (2010 – 2015)	
PAIR (SPOT)	**Unit**	**AUG**	**SEP**	**OCT**	**Q4**	**Q1**	**Q2**	**Q3**	**Min**	**Max**
EUR/USD	Close price	1,122	1,117	1,100	4,19%	11,2%	3,65%	0,35%	1,046 (2015/M3)	1,494 (2011/M5)
EUR/GBP	Close price	0,731	0,734	0,713	0,26%	6,78%	1,99%	4,09%	0,694 (2015/M7)	0,908 (2011/M7)
EUR/JPY	Close price	135,9	133,9	132,8	4,58%	11,0%	5,77%	1,75%	94,11 (2012/M7)	149,8 (2014/M12)
EUR/CHF	Close price	1,084	1,088	1,087	0,25%	13,2%	0,18%	4,43%	0,843 (2015/M1)	1,489 (2010/M1)
EUR/AUD	Close price	1,579	1,594	1,542	2,45%	4,8%	2,62%	10,14%	1,160 (2012/M8)	1,659 (2015/M8)
USD/JPY	Close price	121,1	119,9	120,6	9,17%	0,22%	2,03%	2,07%	75,57 (2011/M10)	125,9 (2015/M6)
USD/CHF	Close price	0,965	0,974	0,988	4,09%	2,21%	3,78%	4,15%	0,707 (2011/M8)	1,173 (2010/M6)
USD/CAD	Close price	1,314	1,332	1,308	3,68%	9,18%	1,63%	6,72%	0,941 (2011/M7)	1,346 (2015/M9)
GBP/USD	Close price	1,536	1,512	1,543	3,95%	4,78%	5,77%	3,60%	1,423 (2010/M5)	1,719 (2014/M7)
AUD/USD	Close price	0,711	0,701	0,714	6,47%	6,82%	1,01%	8,89%	0,691 (2015/M9)	1,108 (2011/M7)

Commodities		Month			2014	2015			Overview (2010 – 2015)	
FUTURE 12/15	**Unit**	**AUG**	**SEP**	**OCT**	**Q4**	**Q1**	**Q2**	**Q3**	**Min**	**Max**
Brent Oil	USD p. barrel, close	55,5	48,8	49,6	43,8%	7,5%	10,2%	25,6%	43,57 (2015/M8)	126,6 (2014/M6)
Natural Gas	USD p. MMBtu, close	3,05	2,82	2,32	30,8%	7,4%	3,3%	12,0%	2,26 (2015/M10)	8,97 (2010/M1)
Aluminum	USD p. ton, close	1548	1590	1479	4,1%	7,1%	4,9%	5,8%	1479 (2015/M10)	2667 (2011/M4)
Copper	USD p. lb., close	2,34	2,34	2,32	5,7%	2,2%	4,4%	10,5%	2,21 (2015/M8)	4,71 (2011/M2)
Nickel	USD p. ton, close	10386	9938	10043	11,5%	13,8%	6,8%	22,5%	9938 (2015/M9)	28412 (2011/M2)
Zinc	USD p. ton, close	1808	1720	1710	5,2%	6,8%	2,6%	17,4%	1710 (2015/M10)	2473 (2011/M2)
Gold	USD p. ounce, close	1133	1115	1141	2,3%	0,2%	1,0%	4,9%	1073 (2015/M7)	1953 (2011/M9)
Silver	USD p. ounce, close	14,6	14,5	15,6	8,8%	6,1%	6,6%	6,9%	13,92 (2015/M8)	50,98 (2011/M4)
Platinum	USD p. ounce, close	1011	909	989	7,1%	5,2%	5,6%	15,8%	893 (2015/M10)	1938 (2011/M8)
Cotton	USD p. lb., close	0,650	0,604	0,633	1,7%	4,0%	5,3%	13,9%	0,028 (2010/M2)	1,668 (2011/M3)
Sugar #11	USD p. lb., close	11,6	12,9	14,5	10,9%	16,3%	1,9%	3,7%	11,04 (2015/M8)	41,16 (2011/M2)
Wheat	USD p. bushel, close	485	512,8	522	22,8%	12,5%	19,7%	17,3%	463 (2015/M9)	1132 (2010/M8)
Corn	USD p. bushel, close	375,3	387,8	382,3	17,3%	6,7%	8,1%	10,1%	260,3 (2010/M6)	786,3 (2012/M8)

Indices		Month			2014	2015			Overview (2010 – 2015)	
INDEX	**Unit**	**AUG**	**SEP**	**OCT**	**Q4**	**Q1**	**Q2**	**Q3**	**Min**	**Max**
S&P500	Quote (close)	1972	1920	2079	4,4%	0,4%	0,2%	6,9%	1011 (2010/M7)	2135 (2015/M5)
NASDAQ Comp.	Quote (close)	4777	4620	5054	5,4%	3,5%	1,8%	7,4%	2061 (2010/M7)	5232 (2015/M7)
Russel 2000	Quote (close)	1151	1096	1158	10,1%	4,5%	0,6%	11,9%	520 (2010/M2)	1286 (2015/M6)
DAX 30	Quote (close)	10260	9660	10850	3,8%	21,7%	8,5%	11,7%	4966 (2011/M9)	12391 (2015/M4)
FTSE 100	Quote (close)	6248	6062	6361	0,7%	3,0%	3,7%	7,0%	4790 (2010/M7)	7123 (2015/M4)
CAC 40	Quote (close)	4653	4455	4898	3,3%	17,8%	4,8%	6,1%	2693 (2011/M9)	5284 (2015/M4)
Euro Stoxx 50	Quote (close)	3270	3101	3418	2,5%	17,5%	7,4%	9,5%	1936 (2011/M9)	3836 (2015/M4)
PSI-20	Quote (close)	5261	5047	5469	4,9%	24,4%	7,0%	9,1%	4372 (2012/M6)	8878 (2010/M1)
Nikkei 225	Quote (close)	18891	17388	19083	7,9%	10,1%	5,4%	14,1%	8136 (2011/M11)	20953 (2015/M6)
S&P Asia 50	Quote (close)	3207	3133	3444	1,8%	5,6%	1,2%	18,3%	2656 (2011/M10)	4183 (2015/M4)