

Advance Studies Program | Kiel, 12th November 2018
Forecasting Methods

Business Cycle Forecasting: The Endurance Test for (Macro-) Economics

Prof. Dr. Stefan Kooths
Forecasting Center



The Forecasting Center

Methodology of business cycle forecasts

The Forecasting Center

Methodology of business cycle forecasts

The Forecasting Center at the Kiel Institute



The FC's role within the Kiel Institute

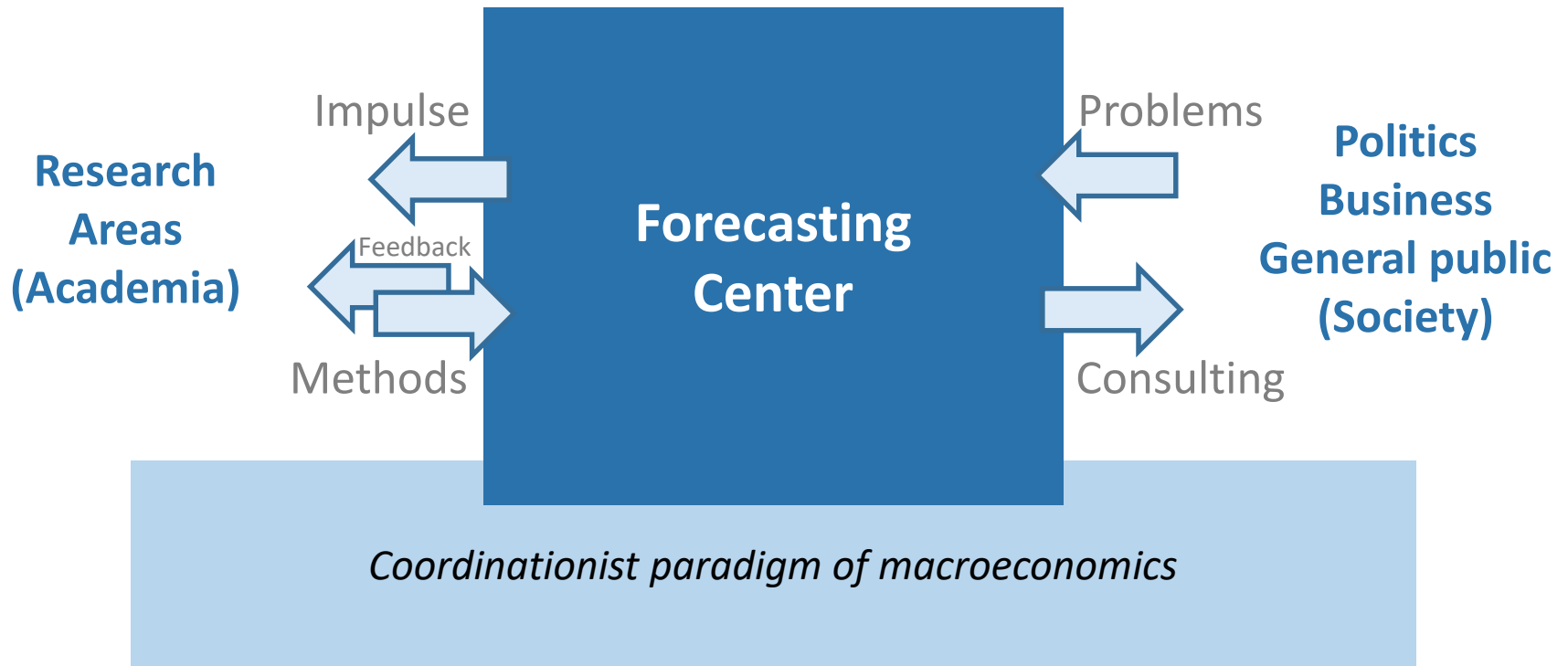
**Macroeconomic
Think Tank**

**Forecasting
Center**

**Business Cycle
Analysis Unit**

Ongoing diagnosis of global economic developments and policy challenges

Research-policy interface



Why phrasing an explicit approach?

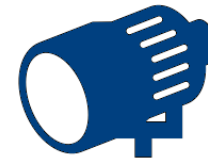
- **Coherence in theoretical reasoning**

- » Validating soundness and consistency



- **Guidance for empirical research**

- » Identifying analytical relevance



- **Transparency in consulting**

- » Articulating fundamental propositions



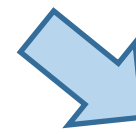
Economic system as a social coordination mechanism



Emphasis on micro-macro nexus



Aggregation:
Handle with care!



Matching processes
matter

⇒ **Macro imbalances: Symptoms of pervasive micro distortions**

■ Micro-macro nexus

- » Mixed market system as a social coordination mechanism for resource allocation
 - ⇒ Relative prices + policy interventions
- » Complex micro exchange processes in multi-good economies
 - ⇒ Aggregation for identifying relevant macro patterns
- » Systemic mismatches (permeating most micro markets)
 - ⇒ Structural analysis along coordination-relevant lines

■ Disequilibrium view

- » Production as a time consuming, multi-stage process
 - ⇒ Human and physical capital as a structure
- » Incomplete, time-varying knowledge in human interaction
 - ⇒ Profit and loss signals triggering ongoing adjustments
- » Entrepreneurial activity (arbitrage + exploration)
 - ⇒ Intertemporal/interlocal/intersectoral reallocation

■ Universal drivers

- » Money
 - ⇒ Medium of exchange
- » Interest
 - ⇒ Price of time
- » Capital
 - ⇒ Structure for intertemporal coordination
- » Labor
 - ⇒ Most universal production factor
- » Property rights
 - ⇒ Incentives and doing business conditions



Beyond demand-side/supply-side economics



Bringing together
theoretical expertise,
empirical evidence,
and **institutional knowledge**
in macroeconomic affairs

- **Quantitative Forecasting: Economic Outlook**
 - » Most likely macroeconomic environment
 - » Regular and detailed empirical analysis
 - » Ongoing input for decision makers (government, business)

⇒ **Business Cycle Analysis**

- **Qualitative Forecasting (Foresight): Pattern Prediction**
 - » Identifying instabilities (non-sustainable trends)
 - » Early-warning mechanisms, risk assessment
 - » Design of robust governance systems (“Ordnungsökonomik”)

⇒ **Macroeconomic Think Tank**

If something cannot go on forever, it will stop.

Herbert Stein

In the economic sphere, an act, a habit, an institution, a law produces not only one effect, but a series of effects. Of these effects, the first alone is immediate; it appears simultaneously with its cause; it is seen. The other effects emerge only subsequently; they are not seen; we are fortunate if we foresee them.

Frédéric Bastiat

- Quarterly reports
 - » World economy
 - » Germany
- Semiannual reports
 - » Euro area
 - » Medium-term (Germany) including potential output

ECB survey of
economic forecasters

Consensus
Economics

Focus
Economics

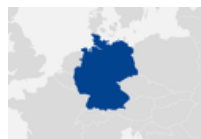
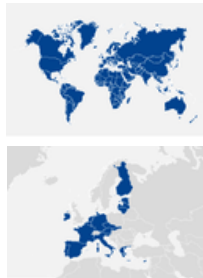
- **Joint Forecast (GD)**
- Official Tax Revenue Projections
- European Networks
 - » AIECE
 - » EUROFRAME

Semiannual
cooperation
projects

Forecasting calendar

**KIELER
BUSINESS
CYCLE
FORUM
KONJUNKTUR
GESPRÄCHE**

**KIELER
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FORUM
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GESPRÄCHE**



Bundesministerium der Finanzen
AKS



Bundesministerium der Finanzen
AKS



- Flagship conference
 - » International two-day-long event
 - » Business cycle analysis and global economic affairs
 - » Sharing research outcomes and platform for policy debate
 - » Spring (Kiel) and Autumn (Berlin: Embassies)
 - » 98th edition and counting

- Expert exchange and dialogue with decision makers
 - » Forecasters, macroeconomists
 - » Policy makers, NGOs
 - » Business leaders (more emphasis here)



2012



2013



2014



2015



2016



2017



2018

- Scientific advisory services to German participants in the **Output Gaps Working Group (OGWG)** of the European Union
 - » German Federal Ministry for Economic Affairs and Energy (BMWi), 2015-2017

- Scientific advisory services to German participants in the **Working Group on the Methodology to assess Lisbon related structural reforms (LIME)** of the Economic Policy Committee of the European Union
 - » German Federal Ministry of Finance (BMF), since 2015

- **Macroeconomic country monitoring (DIWAX)**
 - » German Federal Ministry of Finance (BMF), 2012-2015 and ongoing follow-up service contract

- **Productivity in Germany - Measurement and Drivers**
 - » German Federal Ministry for Economic Affairs and Energy (BMWi) & German Federal Ministry of Finance (BMF), 2016/2017
 - ⇒ *joint work with RA "The Global Division of Labor"*

- Estimating **potential output and the output gap** – An analysis of revisions and cyclicity
 - » German Federal Ministry for Economic Affairs and Energy (BMWi), 2017/2018
 - ⇒ *joint work with CAU Kiel*

- Economic impact of **German FDI and the current account**
 - » German Federal Ministry of Finance (BMF), 2017/2018
 - ⇒ *joint work with RA “The Global Division of Labor”*

- Policy options for reducing the **German current account surplus**
 - » German Federal Ministry of Finance (BMF), input to G20 negotiations, 2017

- The **European Macroeconomic Imbalance Procedure** – Assessment and reform proposals
 - » German Federal Ministry for Economic Affairs and Energy (BMWi), 2013/2014

- **Labor Markets in the Digital Economy**
- Modelling **Long-term Growth Perspectives** for the German Economy
- **Competition Policy within the Digital Agenda:**
The “Relevant Market” Paradigm in the Digital Age
- The **Consequences of BREXIT for the Transatlantic Trade Relationship**
and for the Strategic Focus of Transatlantic Trade Policy

» European Parliament

- Scientific advisory services to the European Parliament's Committee on Economic and Monetary Affairs supporting the **Monetary Dialogue with the European Central Bank** (2015-2020)
 - » Quarterly briefing papers
 - » Hearings at the EU parliament
 - ⇒ joint work with IfW RAs

- **Special assignments**
 - » **Economic policy coordination** in the euro area under the European Semester (2015)
 - » **Euro area fiscal stance**: Measurement, implementation and democratic legitimacy (2016)
 - ⇒ *joint work with “RA Poverty Reduction, Equity, and Development”*

- **Medium-term Economic Plan for Dubai**
 - » Government of Dubai, Department for Economic Development, 2011/2012
 - ⇒ Cooperation with TechnoPark/Dubai Institute of Technology (DIT), Fraunhofer Institute for Production Systems and Design Technology (Fraunhofer IPK)

- **Macroeconomic model of the Egyptian economy** for medium-term scenarios
 - » Egyptian Center for Economic Studies (ECES), 2014/2015

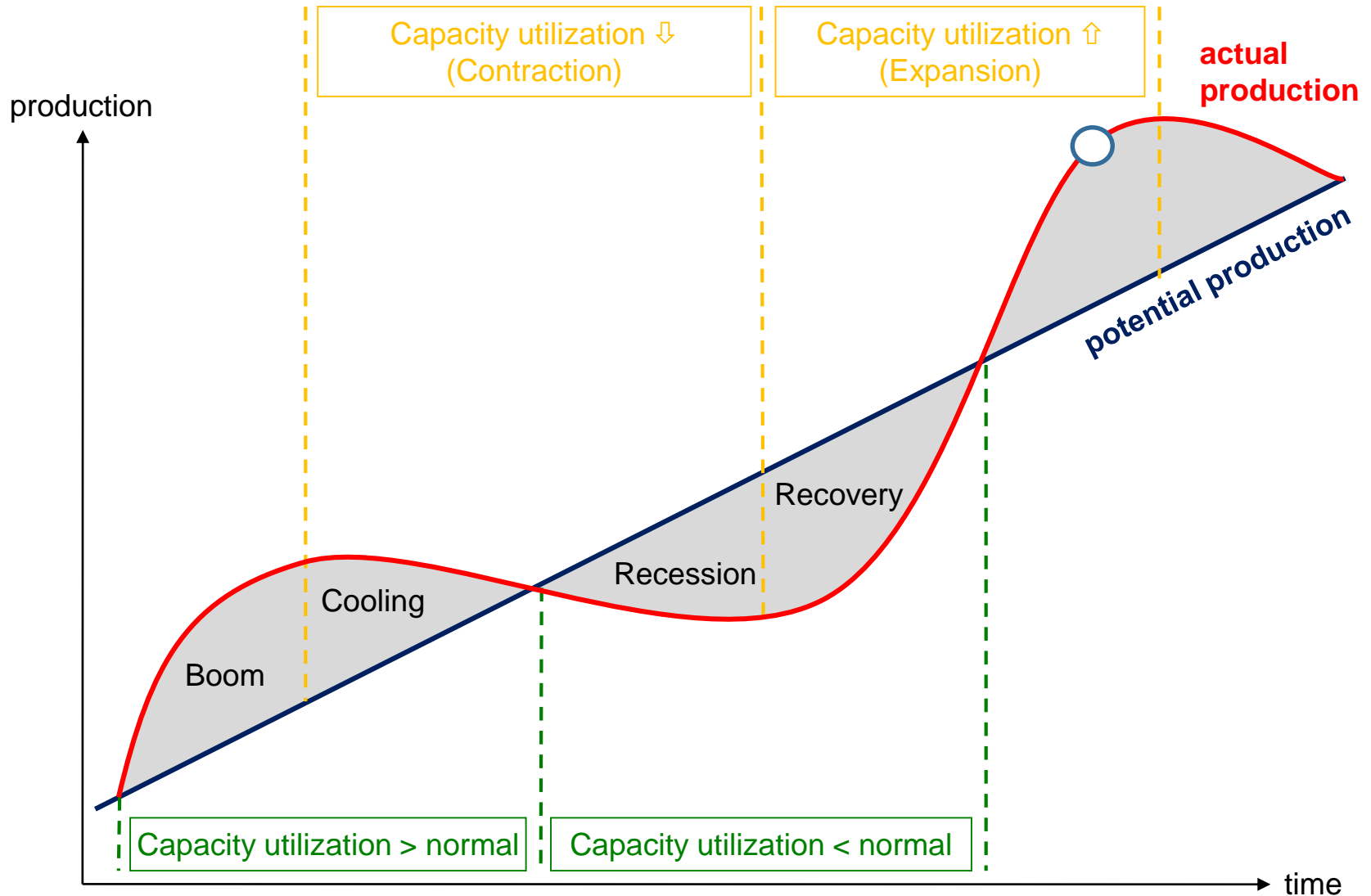
- **World Freezones Economic Outlook** (report and economic sentiment)
 - » World Free Zones Organization (World FZO), 2018-2023

- Macroeconomic advisory services on **medium-term socio-economic planning and forecasting**
 - » Government of Viet Nam, (planning stage)

The Forecasting Center

Methodology of business cycle forecasts

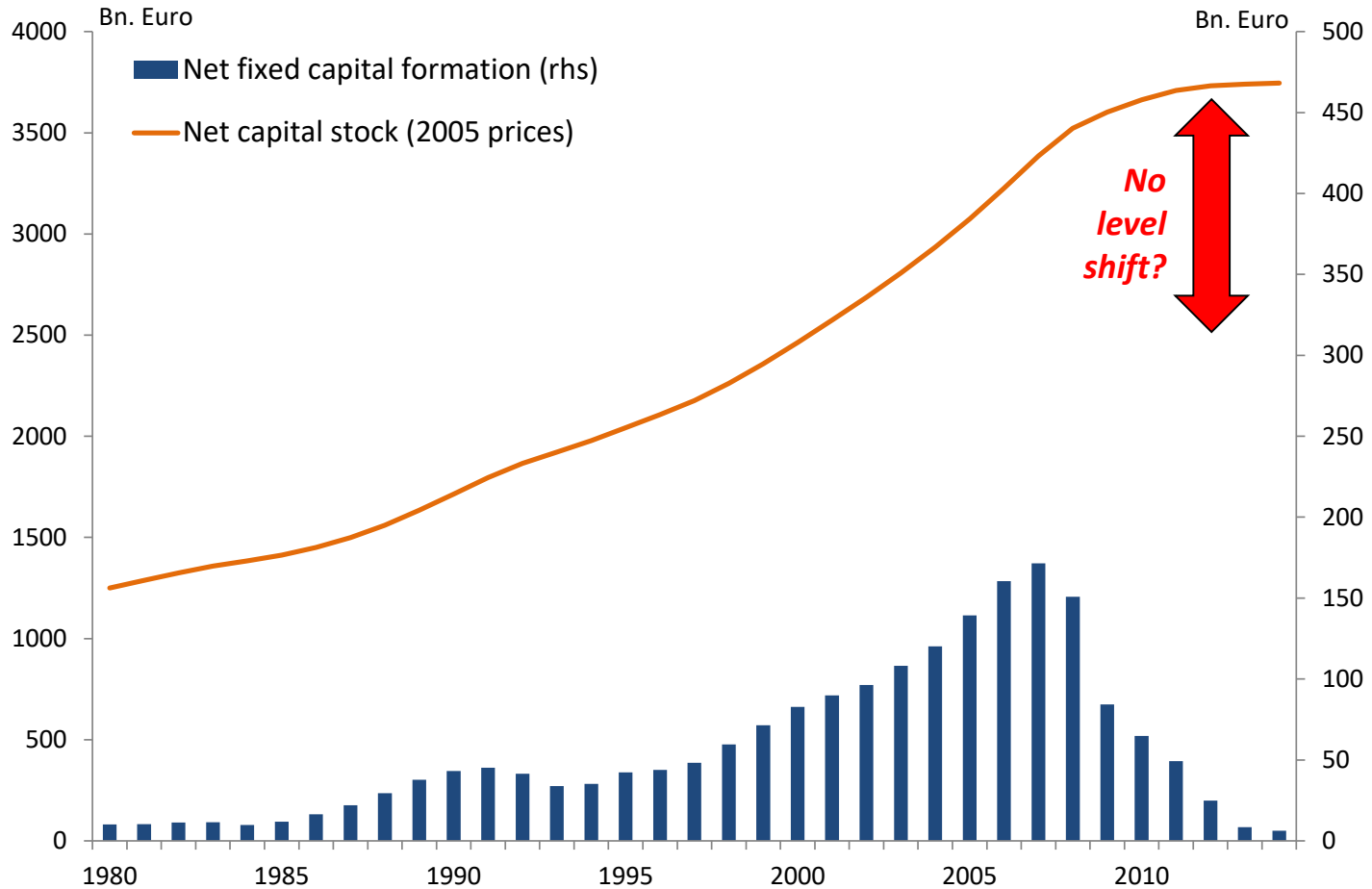
Economic growth and the business cycle: Potential output vs. capacity utilization



- Interpretation:
Deviations from trend interpreted as ...
 - » ... output gap (fluctuations in capacity utilization)
 - » ... technology shocks („real business cycles“)⇒ **Theory matters!**

- Methodology:
Smoothing actual production
 - » Direct: Statistical filtering (e.g. HP-Filter)
 - » Indirect: Estimating an aggregate production function (Cobb-Douglas)⇒ **Econometrics matter!**

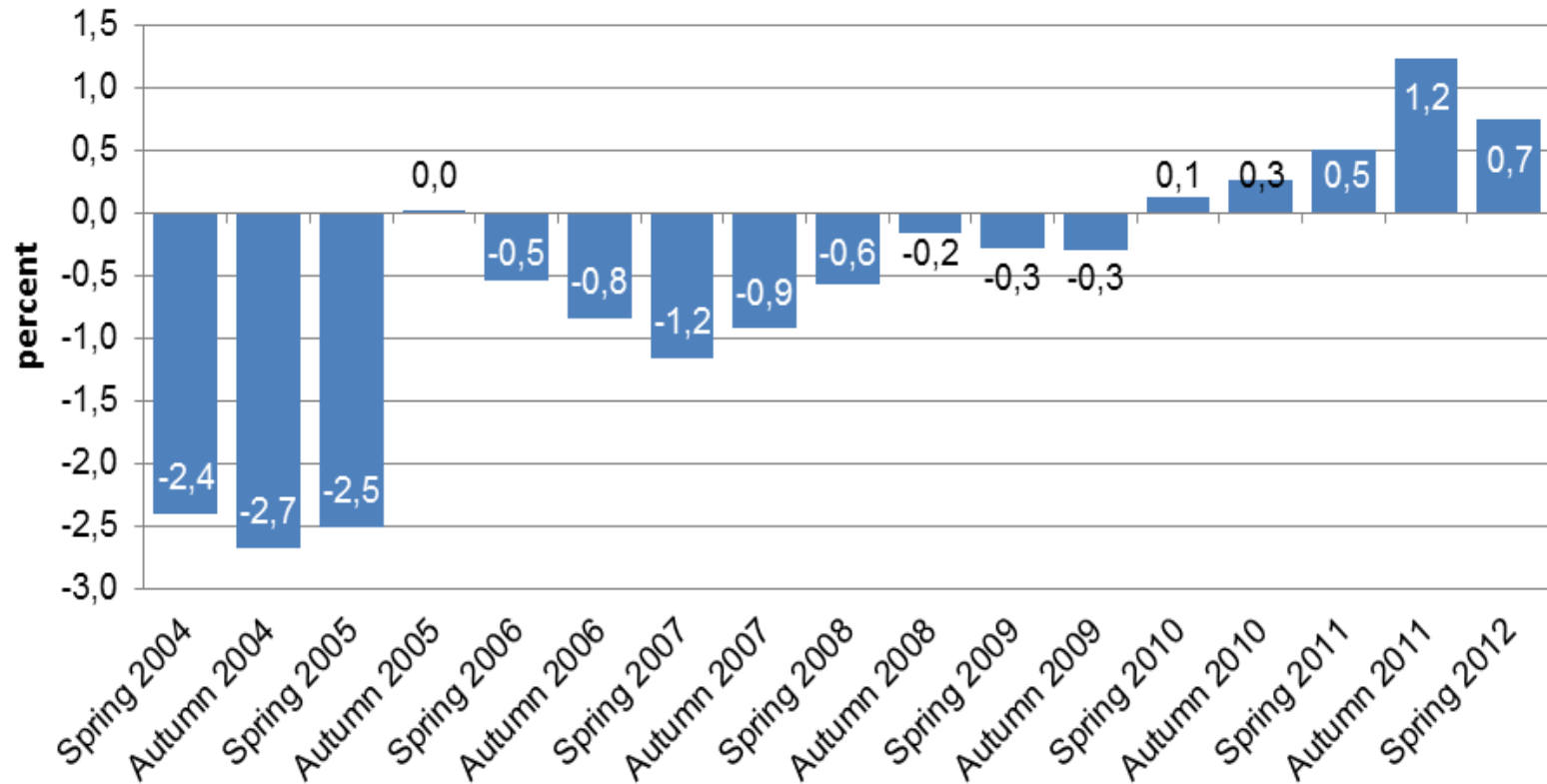
Case study Spain: Value of the capital stock?



Source: AMECO Database.

Case study Spain: The output gap in 2005

Estimations of the European Commission



- Fundamental framework for empirical macroeconomics
- System for recording economic flows and stocks
 - » Activity (production, use, distribution)
 - » Sectors (companies, pr. households, government, RoW)
 - » Industries, products, ...
 - » Key: Knowledge of concepts and pitfalls (knowing the data)
- Global harmonization
 - » UN: System of National Accounts (SNA)
 - » EU: European System of Accounts (ESA), derived from SNA

- Science-based \neq precision
- Methodological fundamentals
 - » Formulating regular patterns (hypotheses)
 - » Describing application conditions (diagnosis)
 - ⇒ Inter-subjective understanding of forecasts
- Theory: Are there economic laws?
 - » Models should not cover all details of the real world
 - » Key problem: structural breaks at the data edge
- Applicability
 - » Imperfect measurement of economic activity
 - » Assumptions/settings remain indispensable
- Problem of endogeneity (expectation formation)

- General assessment of short-term economic trends
 - » Fluctuations of economic activity
 - » Forecasting horizon up to 3 years (beyond: medium-term projections)
 - » Data edge: Flash estimates

- Components
 - » Diagnosis of the current economic situation
 - » Assumptions on key driving forces
(e.g. raw material prices, exchange rates, monetary/fiscal policies)
 - » Time series forecasts for a comprehensive battery of variables
(e.g. GDP, inflation rate, employment, ...)
 - » Explanations („Story telling“)
 - » Scenarios and policy simulations

Key data source: National accounts

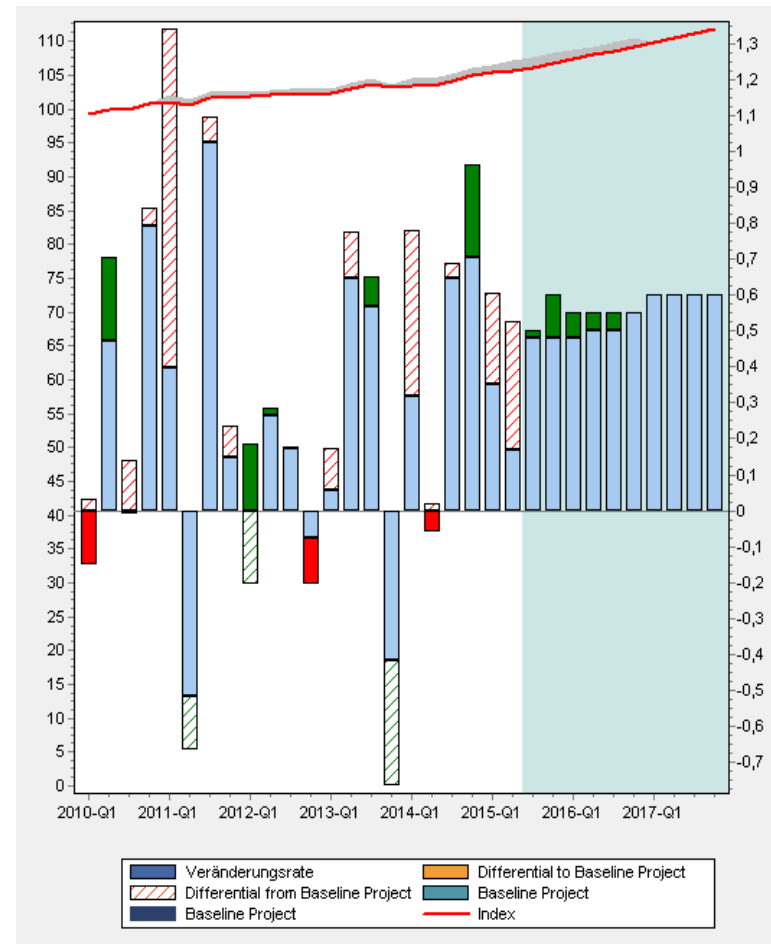
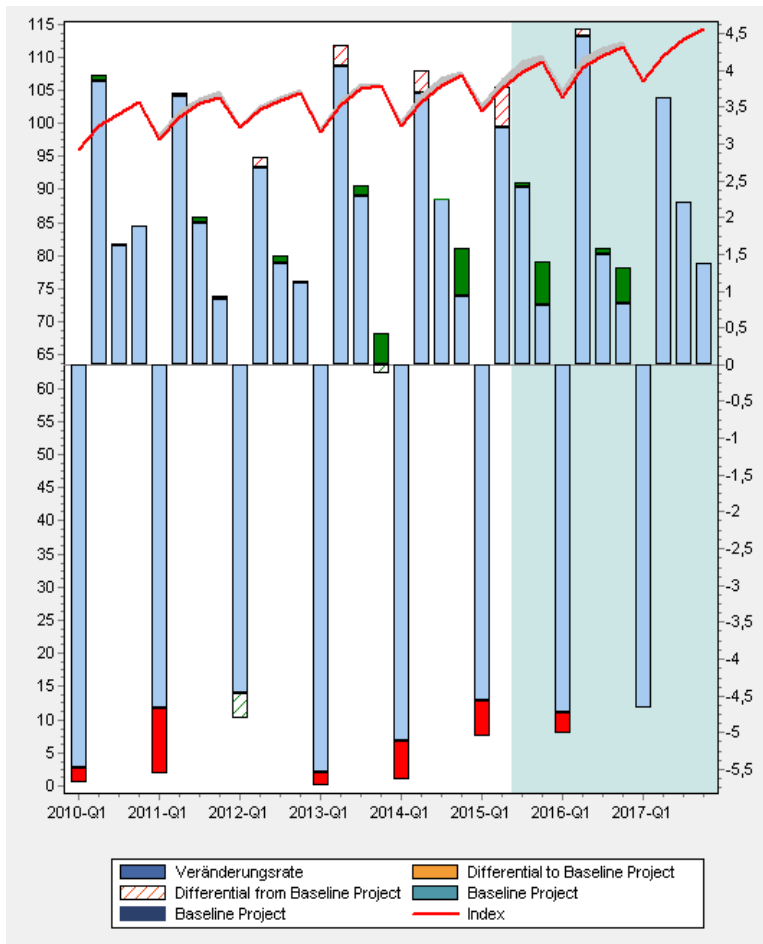
- Frequency: Quarters
 - » Flash announcement (GDP): 4 to 5 weeks
 - » Components (use/production): 7 weeks

- Revisions
 - » Ongoing: Up to 3 years
 - » Major: Every 5 years
 - » Methodological (NA framework): Approx. every 15 years

- Regional data: „National accounts of the Länder“

Data revisions: Private consumption spending

As of 2015-Q3 vs. 2015-Q2



Quartalswerte, preisbereinigt. Ursprungswerte (links), saison- und kalenderbereinigte Werte (rechts).
 Linie: Index (2010 = 100, linke Achsen), Balken: Veränderung gegenüber dem Vorquartal in Prozent (rechte Achsen).
 Datenstand: August 2015 im Vergleich zu Mai 2015 (Baseline); rot: Abwärtsrevision, grün: Aufwärtsrevision.
 Quelle: Statistisches Bundesamt, Fachserie 18, Reihe 1.2 und 1.3; Prognosen des IfW (Herbst und Sommer 2015).

- Separation of volume and price (deflating)
 - » Constant prices vs. chain-linking
 - » Fragile price data (in particular for stock quantities)
 - » Qualitative quantity: Hedonic pricing
- Seasonal and working-day adjustments
 - » Key for interpreting activity at the data edge
 - » Alternative approaches (e.g. Census-X12-Arima, BV4)
- Smoothing
 - » Outlier vs. cycle dynamics
 - » Cycle vs. trend
- Statistical mechanics
 - » Carry-over effects
 - » Cyclical growth rates vs. cycles in capacity utilization

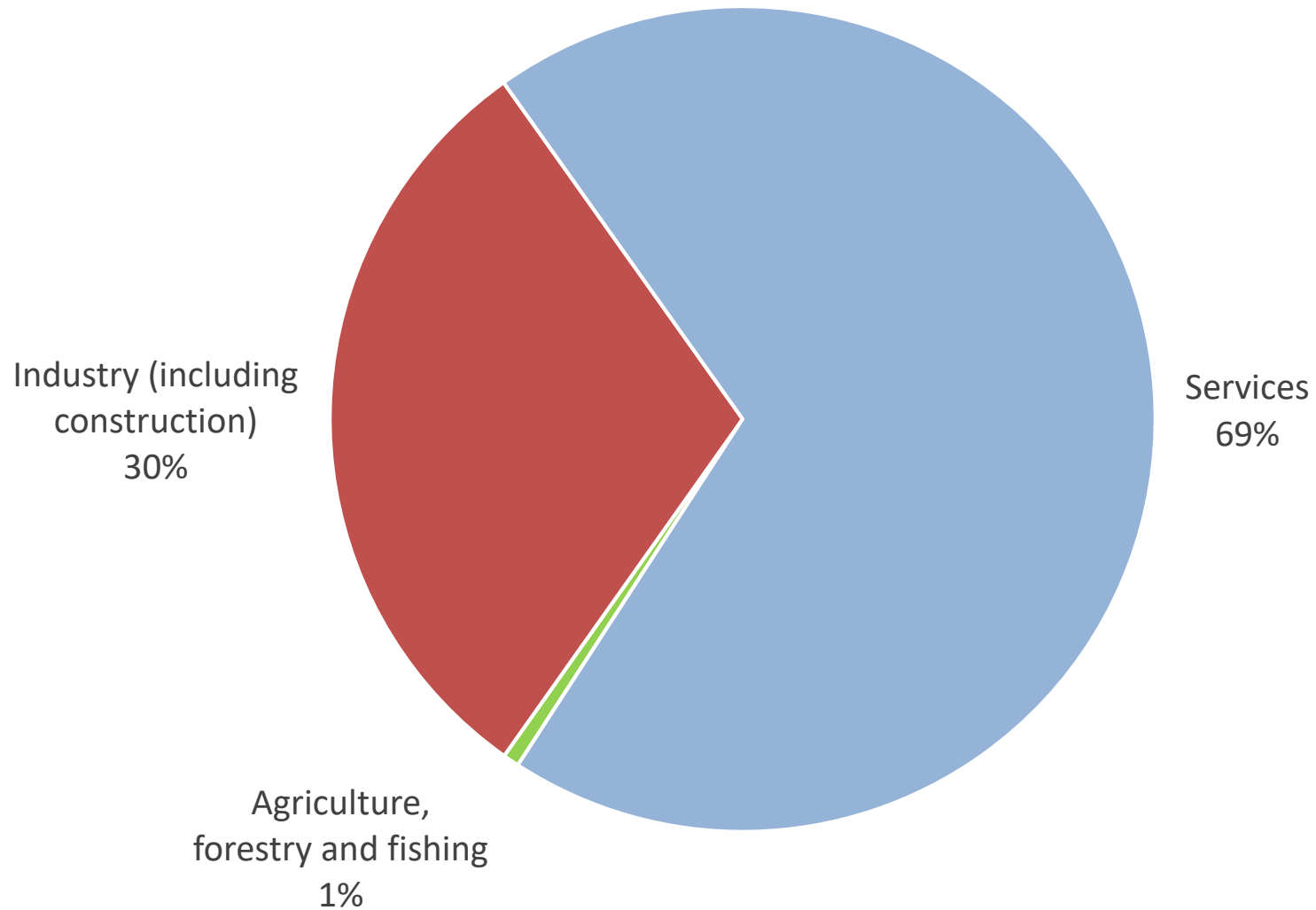
- Estimated past („backcasting“)
 - » Statistical offices massively estimate at the data edge
 - » Revisions

- Regional accounts
 - » Limited set of time series compared to national accounts
 - » Time lags up to three years
 - » Almost no quarterly data
 - » Top-down, not bottom-up

- Sectorial imbalance
 - » The more important a sector is (weight in terms of value-added), ...
 - » ... the less data is available.

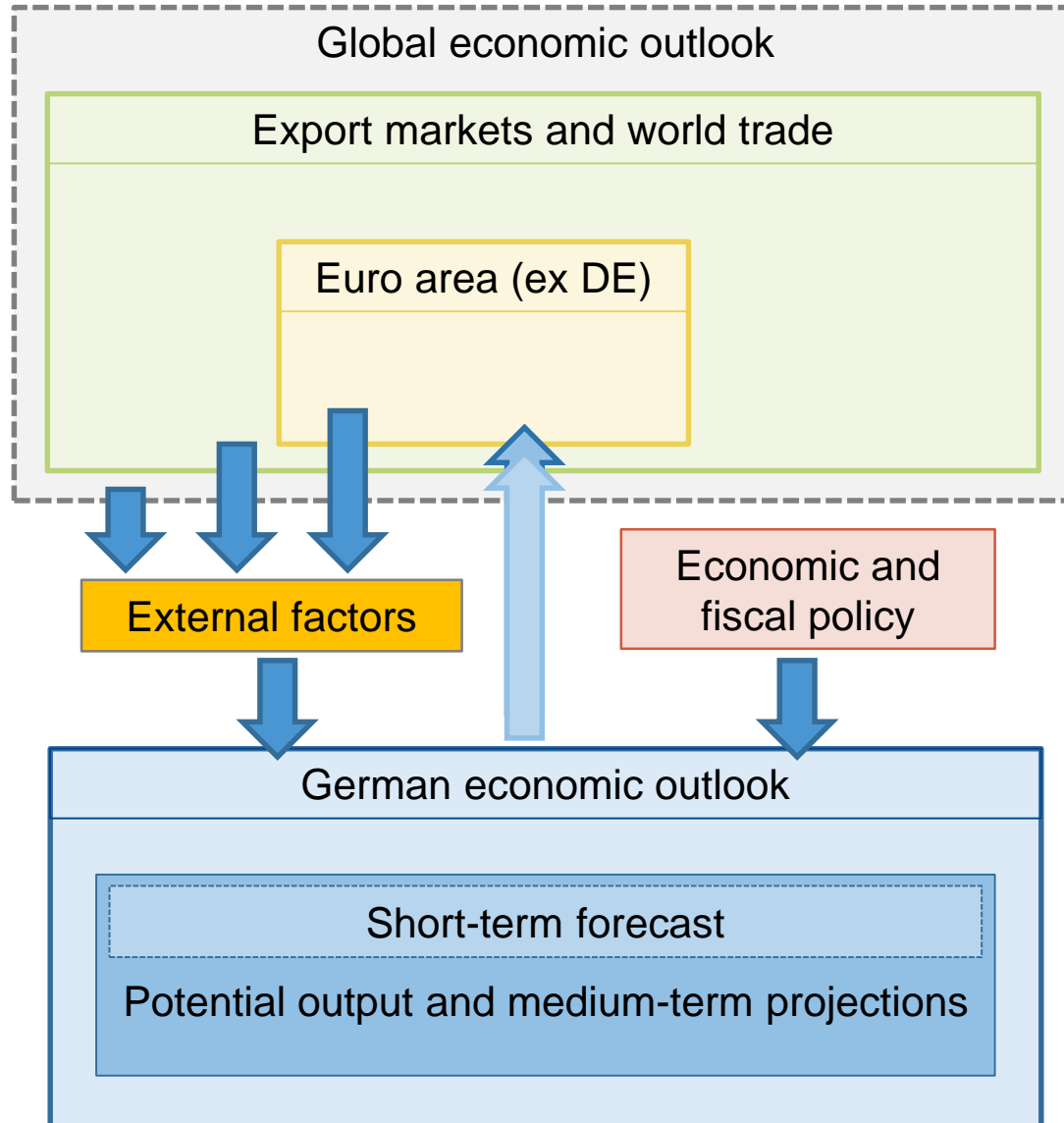
Branches of economic activity

Share in value-added (percent, data for 2016)

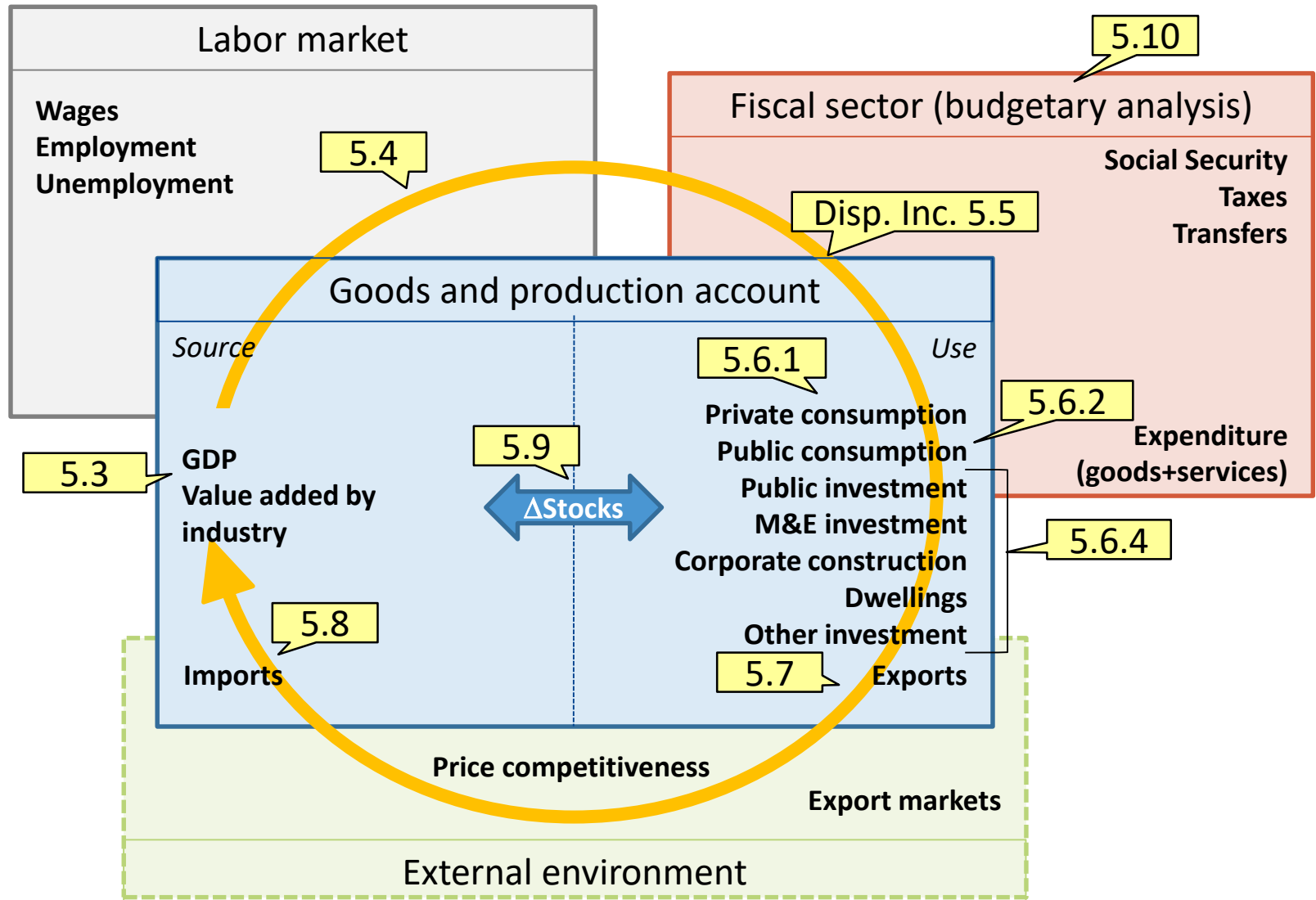


- Data edge: Leading indicators
 - » Business climate, incoming orders, capacity utilization, ...
 - » Current and subsequent quarter
- Time series models
 - » Statistical correlations
 - » Probabilistic approach, not necessarily theory-based
- Macroeconomic structural models
 - » Linking economic theory and time data
 - » Trade off: Theoretical soundness vs. statistical fit (data edge!)
- **Iterative-analytical approach**
 - » Integration of expert knowledge (e.g. first-time events)
 - » National accounts framework: Plausibility, consistency
 - » Research: AI-supported reasoning

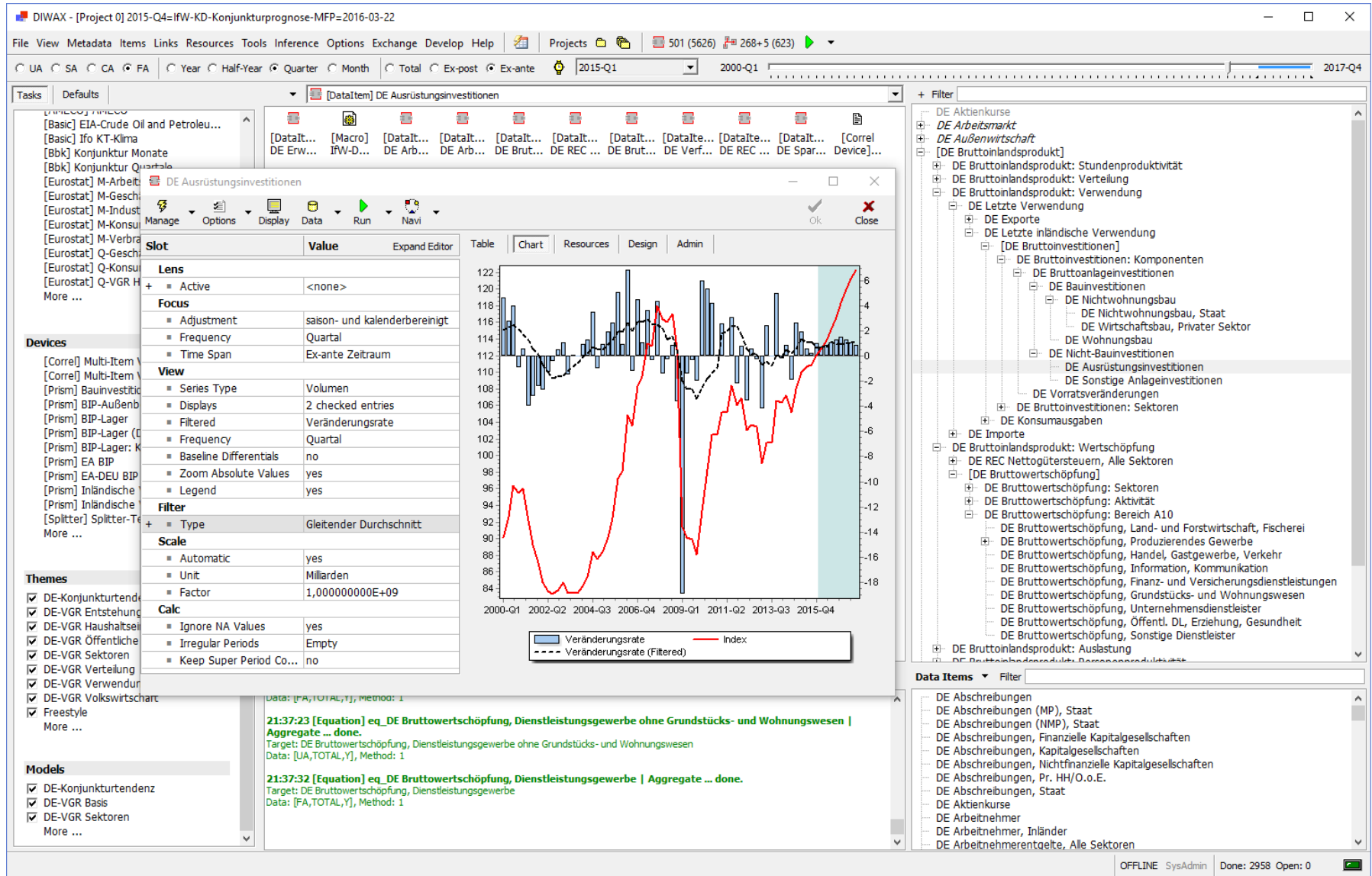
Components



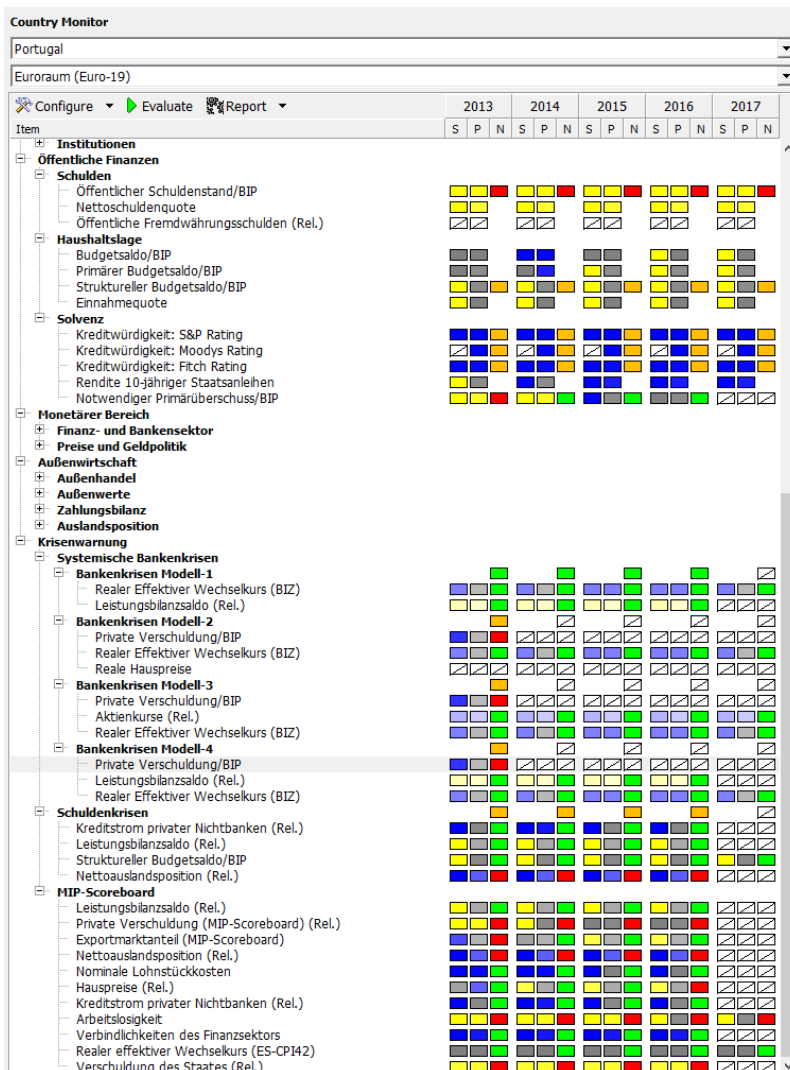
Iterative-analytic approach



DIWAX: Expert software system for macro forecasting within National Accounts frameworks



DIWAX: Country monitoring



- Developed for BMF
- 53 countries
- 100+ indicators
- Early warning models
- Monthly updates
- Implemented in DIWAX

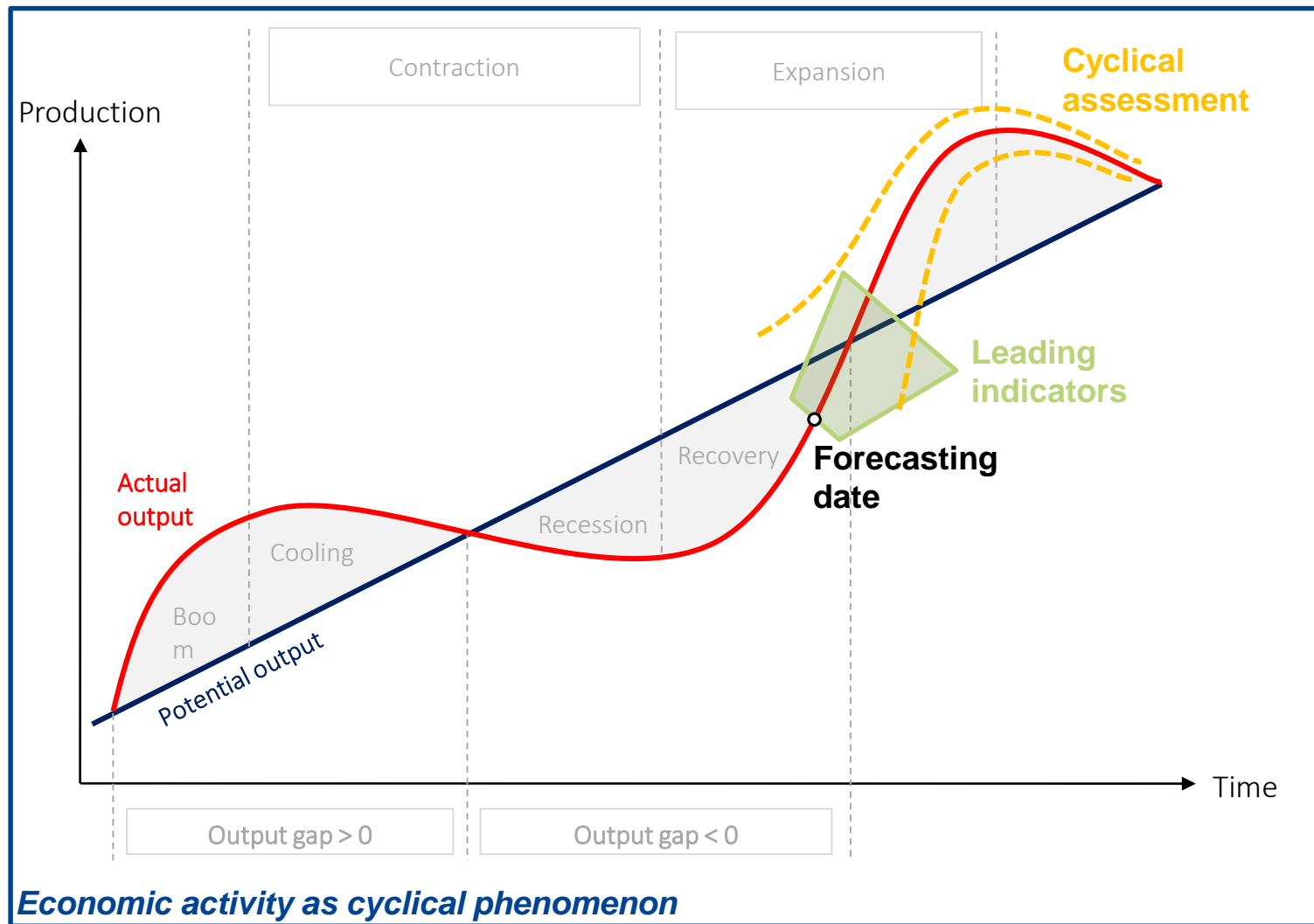
■ Forecasting

- » *Nowcasting/Short-run*
(Dynamic) Factor models, Bridge equations, MIDAS, Forecast combination models, Bayesian VARs, Error correction models
- » *Bust prediction*
Probit, Markov-Switching
- » *Medium-run projections and potential output estimation*
Modified EU method incl. age cohort model, Early-warning models for financial crises

■ Simulations

- » International macroeconometric model
NiGEM
- » Wieland/Wolters
Macroeconomic Model Data Base
- » DSGE models for Germany
(e.g. Bbk-GEAR)
- » Structural VARs, Global VARs, Panel models, Non-linear time-series models

Short-term and medium-term analysis



Coordinationist paradigm

Macroeconomic production and product account

Source				Use
Domestic production (at market prices) X^{MP} <ul style="list-style-type: none"> Net taxes on products NTP (Taxes on products TP – subsidies on products) SP Domestic production (at basic prices) X^{BP} 				Intermediate consumption V
		GDP	GDP	Final use <ul style="list-style-type: none"> Final domestic use <ul style="list-style-type: none"> » Consumption (private and public) C » Gross investment (private and public) I Exports Ex
Imports Im				

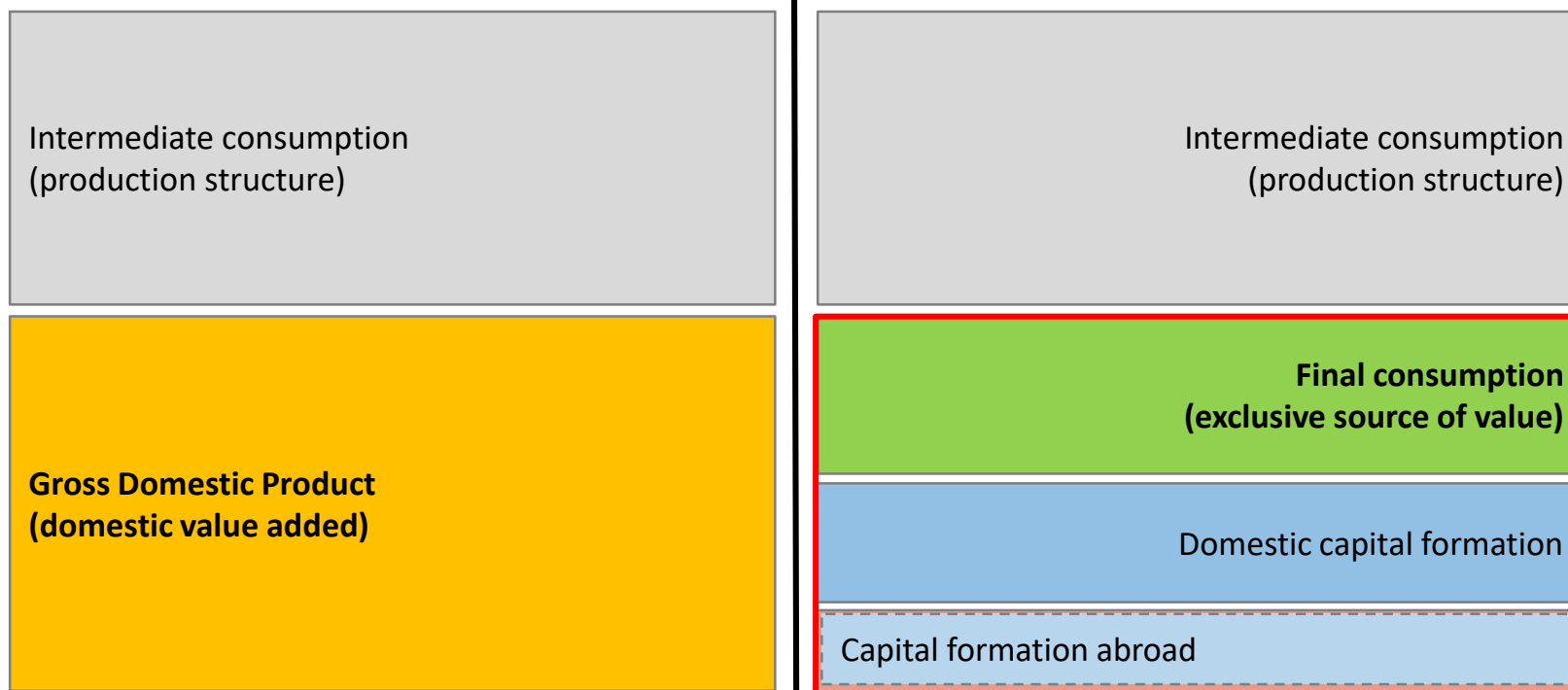
GDP = Gross Domestic Product at market prices

Pitfalls of hydraulic macro accounting: “Final aggregate demand”

*Macroeconomic goods and services account
(for period t)*

Source (not: supply)

Use (not: demand)



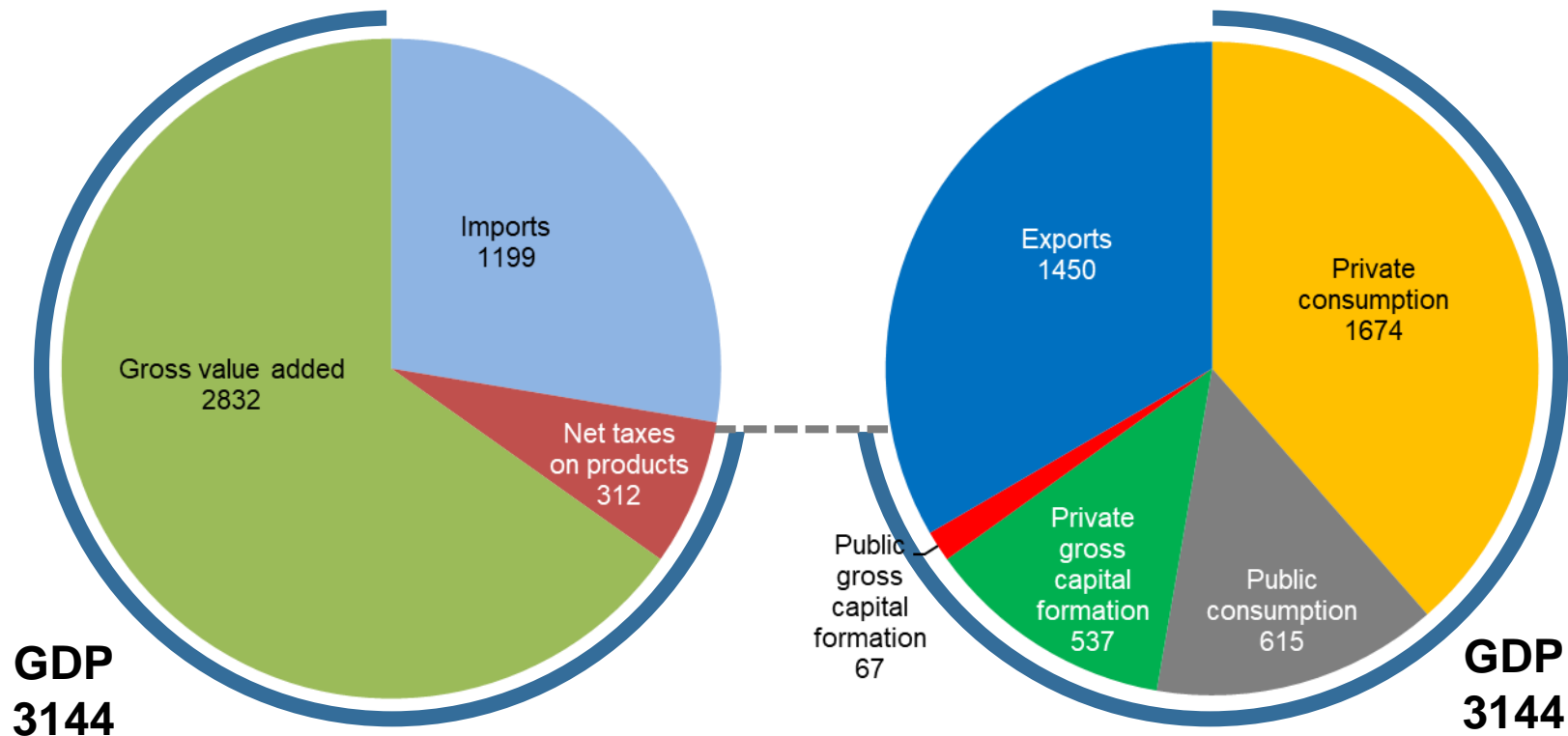
$$\mathbf{GDP = C + I + Ex - Im}$$

Source and use of goods and services in Germany

Data for 2016 in bn. Euro; Source: Statistisches Bundesamt, Fachserie 18, Reihe 1.4

Source

Use



Die beste Konjunkturprognose kam aus Kiel

Die meisten Forscher haben das Wachstum unterschätzt

Frankfurt, 14. Januar. Nachdem das Statistische Bundesamt am Donnerstag den vorläufigen Wert für das Wirtschaftswachstum 2015 – 1,7 Prozent – bekanntgegeben hat, ist klar: Die Volkswirte der Forschungsinstitute und der großen Banken haben den Konjunkturverlauf insgesamt treffend vorhergesehen. Zwar waren fast alle Jahresprognosen aus dem Dezember 2014 etwas zu pessimistisch. Die Abweichungen spielen sich aber im Nachkommabereich ab.

Ein Volltreffer ist den Konjunkturforschern des Instituts für Weltwirtschaft in Kiel (IfW) gelungen. In einer Mitte Dezember fertiggestellten Prognose sagten sie exakt 1,7 Prozent Zuwachs voraus. Nur sehr knapp daneben lagen die Volkswirte der Allianz (1,6 Prozent) sowie das Ifo-Institut, das Essener RWI und der Internationale Währungsfonds (1,5 Prozent). Die Deutsche Bank, die im Vorjahr genau wie das RWI und das DIW sehr gut abgeschnitten hatte, lag mit der Vorhersage von 0,8 Prozent vergleichsweise weit daneben. Von den hier ausgewerteten Banken-Prognosen, lag die der ING Diba am besten. Dass fast alle Volkswirte zu pessimistisch waren, hängt damit zusammen, dass sie Ende 2014 nach einer schwächeren Konjunkturphase ihre Prognosen heruntergerechnet hatten. „Wir haben uns daran nicht beteiligt und eine Strategie der ruhigen Hand verfolgt“, erklärt IfW-Forscher Stefan Kooths.

Wichtiger als eine Genauigkeit bis auf die letzte Nachkommastelle ist allerdings, die zugrundeliegenden wirtschaftlichen Trends richtig einzuschätzen. Denn theoretisch ist es möglich, aus falschen Gründen den richtigen Wert zu ermitteln. Auch unter diesem Aspekt

kann sich die Studie des Instituts aus Kiel sehen lassen. „Zunächst wird insbesondere der private Verbrauch stärker wachsend wirken. Dieser wird durch den sprudelnde Einkommensteuern und den Ölpreisverfall die Kaufkraft befeuert.“ Ende 2014 hatten die Forscher den Rückgang der Arbeitslosenquote auf 6,4 Prozent im Jahreschnitt hatten die Institute mit Ausnahme des Hamburger Ifo-Instituts und der Deutschen Bank (HWWI) nicht erwartet.

Die Inflationsschwäche im vergangenen Jahr wurde wegen des geringen Ölpreises im Schnitt lediglich 0,3 Prozent betragen hat, wurde von den Volkswirten durchgängig höher erwartet. Den starken Rückgang der Arbeitslosenquote auf 6,4 Prozent im Jahreschnitt hatten die Institute mit Ausnahme des Hamburger Ifo-Instituts und der Deutschen Bank (HWWI) nicht erwartet.

Die insgesamt durchweg vorläufigen Jahresprognosen überdeckten jedoch, dass die Konjunkturforscher den Jahresverlauf ihre Einschätzungen weniger angepasst haben – und damit immer richtig lagen. Nach dem schwungvollen Jahresausklang 2014 und einem guten Jahresbeginn setzten die führenden Institute ihre Prognose in ihrer Gemeinschaftsdiagnose auf 2,1 Prozent herauf. Als im März die Griechenland-Krise und die Wirtschaftsverlangsamung in China die kommenden Themen waren, wurde die Prognose nicht zu hoch. In der Herbstprognose ruderten die Institute auf 1,2 Prozent zurück. Die IfW-Prognose lag in der Mitte.

Sollten die Kieler Forscher auch in diesem Jahr recht behalten, wächst die Wirtschaft um 2,2 Prozent.

Prognosen für Deutschland 2015 und ihre Treffsicherheit

Prognosen von Okt. bis Dez. 2014	reales BIP-Wachstum in Prozent	Arbeitslosenquote in Prozent ¹⁾	Inflation in Prozent ²⁾
IfW	1,7	6,6	0,8
Allianz	1,6	6,6	0,9
IWF	1,5	5,3	1,2
Ifo	1,5	6,6	0,8
RWI	1,5	6,8	1,0
DIW	1,4	6,8	0,7
ING Diba	1,4	6,7	0,9
Deutsche Bank	1,3	6,7	1,1
Statistik	1,2	6,8	1,4
ING Diba	1,1	6,7	1,1
Deutsche Bank	1,0	6,7	1,3
Statistik	1,0	6,7	1,1
Deutsche Bank	1,0	6,9	1,5
Statistik	0,8	6,8	1,2
Ist-Wachstum	1,7	6,4	0,3

¹⁾ Bezogen auf inländische Produktion. ²⁾ IWF: harmonisierte Inflationsrate. Quelle: FAZ-Archiv/FAZ-Grafik/ibf.



#1 GDP FORECASTER - GERMANY



Source: FAZ, 15 January 2016, p. 19

- Criteria
 - » Precision
 - » Rationality
 - » Turning point detection

- Problem
 - » Forecasts that (do not) prove true can be wrong (right)
 - » Mind the forecasting date (data revisions!)

- Benchmarks
 - » Naive forecasts
 - » AR-/ARIMA-models

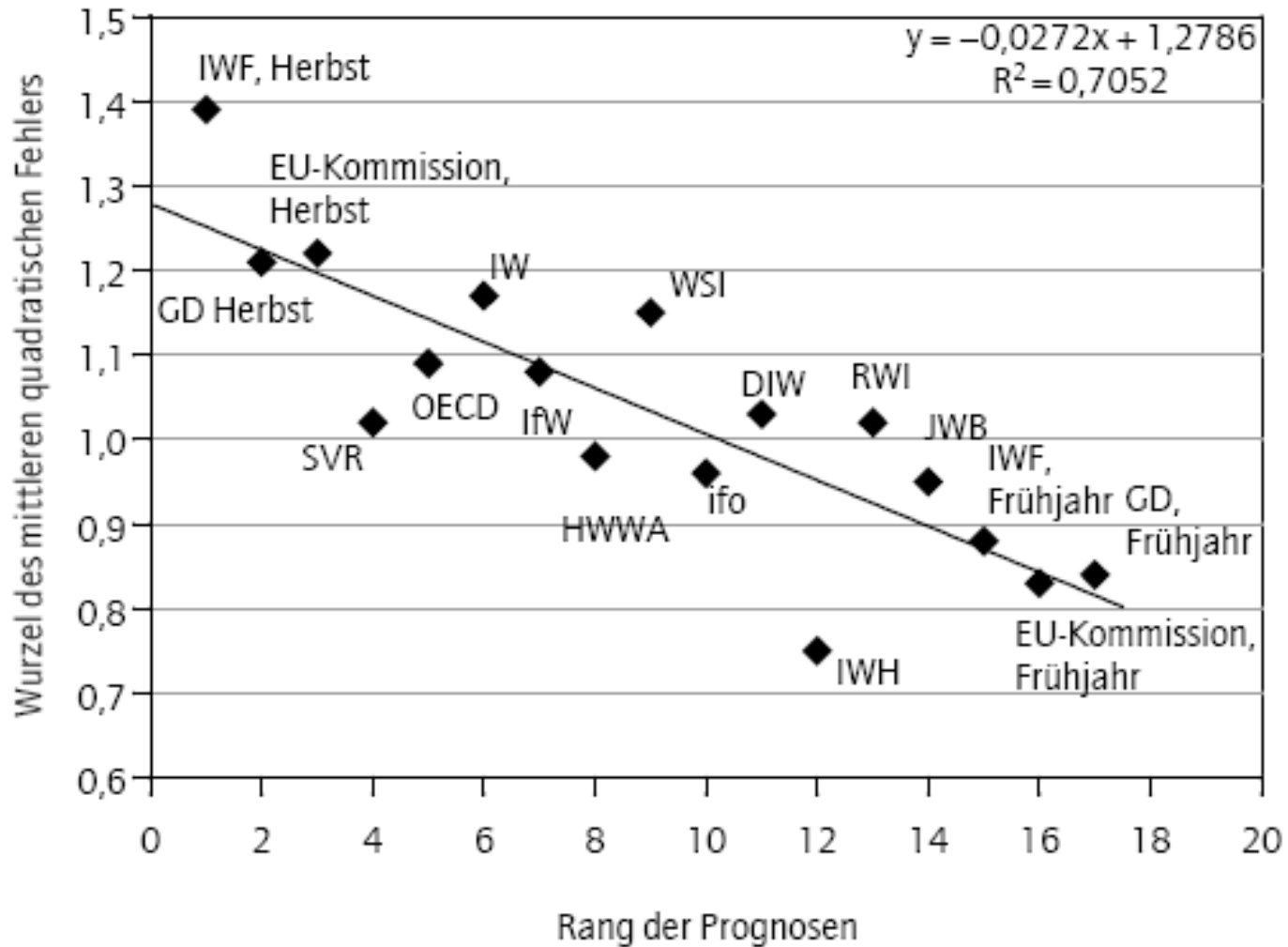
- Precision
 - » Mean squared/absolute errors
 - » Errors and variability

- Rationality
 - » Un-biasedness: mean squared error = zero
 - » Efficiency
 - Weak efficiency: Learning from errors
 - Strong efficiency: Making use of all relevant information

- Turning point detection
 - » Predictive power

Precision and forecasting date

Forecasted change in GDP volume



Quality, Un-biasedness and rationality

Forecasted change in GDP volume

Probability to refuse the non-existence of the respective property by mistake

Institution	Mittlerer Fehler	Mittlerer absoluter Fehler	Wurzel des mittleren quadratischen Fehlers	Test auf Unverzerrtheit ¹	Test auf „schwache“ Rationalität ¹	Test auf „starke“ Rationalität unter Zuhilfenahme des kurzfristigen Zinssatzes ¹	Test auf „starke“ Rationalität unter Zuhilfenahme des realen Außenwertes ¹	Test auf „starke“ Rationalität unter Zuhilfenahme des Ölpreises ¹	Test auf „starke“ Rationalität unter Zuhilfenahme der OECD-Industrieproduktion ¹
IWF, Herbst	-0,71	1,39	1,83	0,08	0,96	0,01	0,14	0,09	0,13
GD, Herbst	-0,39	1,21	1,65	0,33	0,86	0,06	0,29	0,28	0,37
Europäische Kommission, Herbst	-0,46	1,22	1,67	0,26	0,88	0,02	0,33	0,21	0,24
Sachverständigenrat	-0,36	1,02	1,45	0,35	0,95	0,09	0,31	0,54	0,34
OECD	-0,35	1,09	1,58	0,42	0,60	0,08	0,49	0,30	0,29
IW	-0,34	1,17	1,71	0,30	0,14	0,09	0,48	0,30	0,42
ifw	-0,26	1,08	1,55	0,35	0,95	0,13	0,30	0,32	0,36
HWWA	-0,22	0,98	1,38	0,67	0,57	0,29	0,61	0,56	0,63
WSI	-0,14	1,15	1,58	0,51	0,71	0,12	0,44	0,33	0,38
ifo	-0,13	0,96	1,33	0,86	0,44	0,40	0,86	0,50	0,64
DIW Berlin	0,02	1,03	1,51	0,50	0,62	0,09	0,46	0,18	0,50
IWH	-0,40	0,75	1,00	0,42	0,17	0,64	0,23	0,61	0,28
RWI	-0,30	1,02	1,34	0,40	0,65	0,15	0,51	0,55	0,56
Jahreswirtschaftsbericht	-0,26	0,95	1,40	0,56	0,38	0,29	0,58	0,35	0,66
IWF, Frühjahr	-0,19	0,88	1,22	0,40	0,12	0,20	0,49	0,21	0,65
Europäische Kommission, Frühjahr	-0,23	0,83	1,11	0,42	0,44	0,24	0,67	0,25	0,76
GD, Frühjahr	-0,24	0,84	1,18	0,48	0,91	0,20	0,66	0,24	0,58

Quelle: U. Fritsche/J. Döpke (2006)

Turning point prediction

Forecasted change in GDP volume

	Wachstumsprognosen	
	Informationsgehalt	Unabhängigkeitstest ¹
IWF, Herbst	1,47	0,01
GD, Herbst	1,34	0,02
Europäische Kommission, Herbst	1,39	0,02
Sachverständigenrat	1,31	0,05
OECD	1,65	0,00
IW	1,78	0,00
ifw	1,41	0,01
HWWA	1,36	0,03
WSI	1,41	0,01
ifo	1,47	0,00
DIW Berlin	1,47	0,00
IWH	1,83	0,00
RWI	1,36	0,03
Jahreswirtschaftsbericht	1,41	0,01
IWF, Frühjahr	1,39	0,01
Europäische Kommission, Frühjahr	1,53	0,00
GD, Frühjahr	1,52	0,00

Information content

- 1 = Flip of a coin
- 2 = Perfect forecast

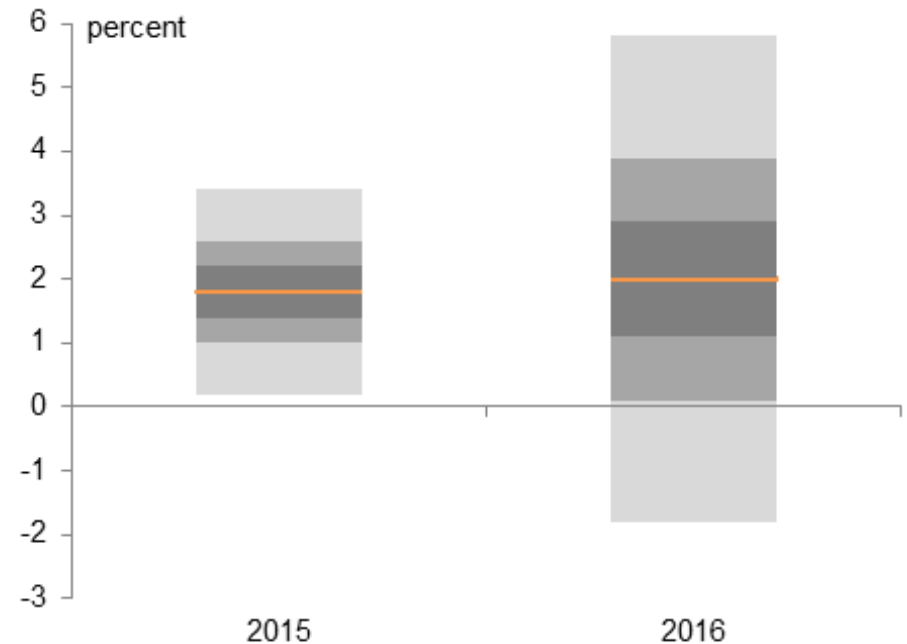
Test for independence

Likelihood to be beat coin flipping only by chance

Quelle: U. Fritsche/J. Döpke (2006)

Independent forecasting vs. fan-charts

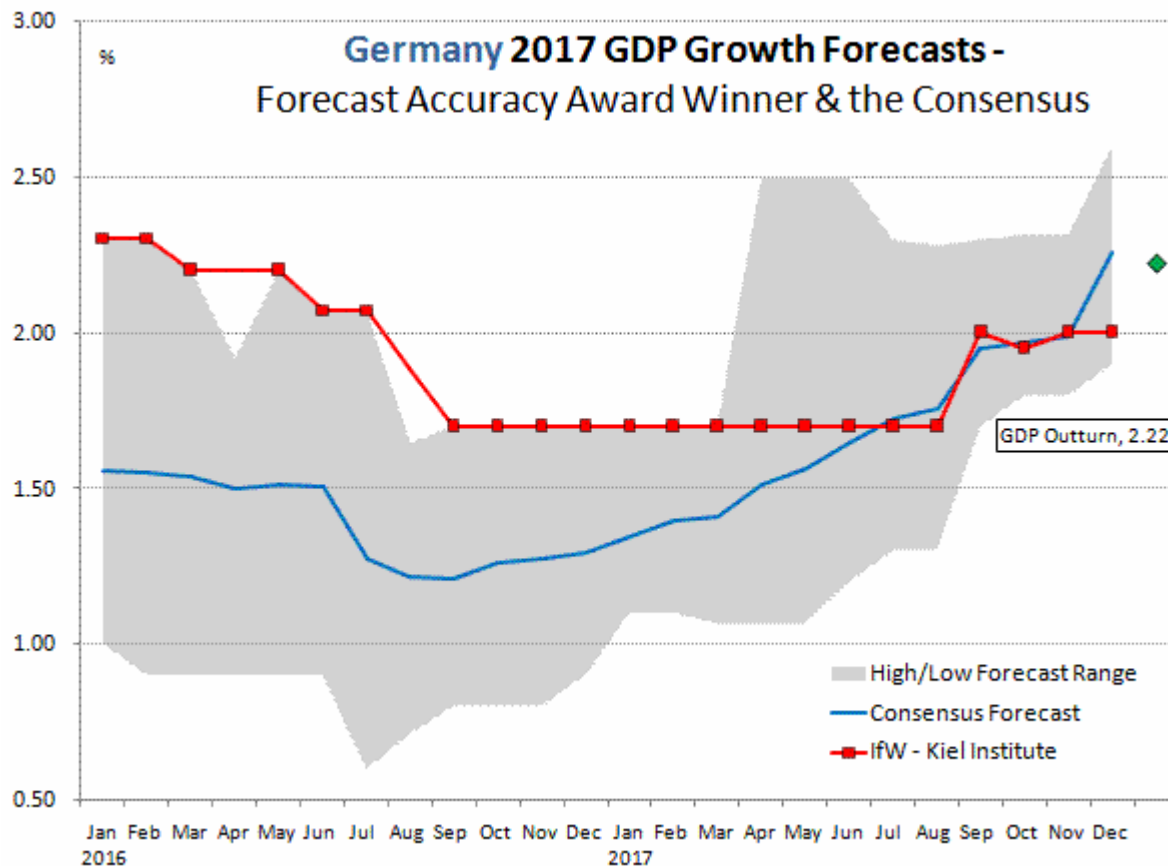
- Germany:
Five major (tax-financed)
forecasting institutes
- Spectrum of independent
analysis



GDP: volumes, change over previous year. Point forecasts: orange lines. Forecast intervals gray shaded areas with confidence levels of 33, 66, and 95 percent. Confidence levels calculated based on historical forecast errors of the Kiel Institute in the fourth quarter 1994–2013.

Source: IfW calculations.

Reading the business cycle: Assessing the current upswing in Germany

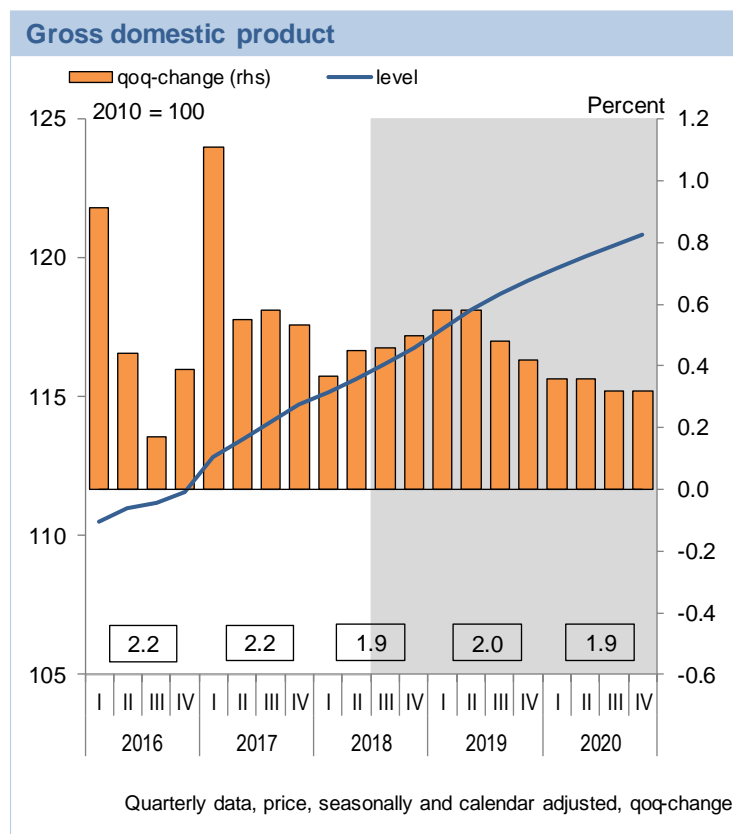


Source: Consensus Economics.

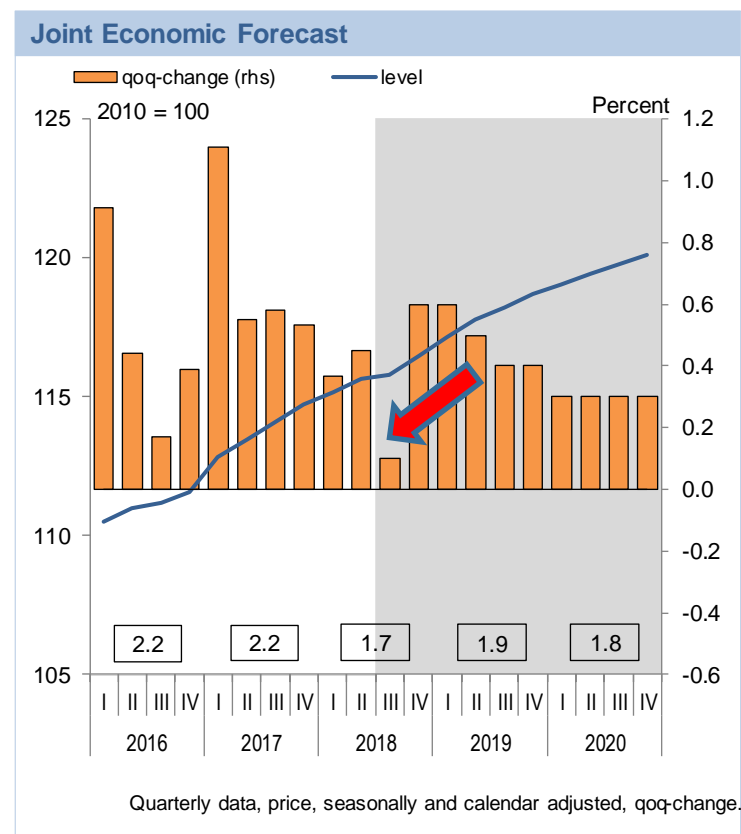
- Early focus on overheating risks in Germany ...
- ... now shared by SVR, Bbk, Stabilitätsrat
- Joint forecast (GD) drifting towards IfW views

German GDP: WLTP-induced disturbance in the car industry (autumn 2018)

Kiel Economic Outlook



Joint Forecast



Current IfW assessment: Decline by 0.3 percent in 2018-Q3

Herbst 2017

*Aufschwung weiter kräftig –
Anspannungen nehmen zu*

Frühjahr 2018

*Deutsche Wirtschaft im Boom –
Luft wird dünner*


GEMEINSCHAFTS- DIAGNOSE #2-2017

Dienstleistungsauftrag des Bundesministeriums für Wirtschaft und Energie
Der Projektgruppe Gemeinschaftsdiagnose gehören an:



GEMEINSCHAFTS- DIAGNOSE #1-2018

Dienstleistungsauftrag des Bundesministeriums für Wirtschaft und Energie
Der Projektgruppe Gemeinschaftsdiagnose gehören an:



Herbst 2018

*Aufschwung verliert an Fahrt –
Weltwirtschaftliches Klima wird rauer*

GEMEINSCHAFTS- DIAGNOSE #2-2018

Dienstleistungsauftrag des Bundesministeriums für Wirtschaft und Energie
Der Projektgruppe Gemeinschaftsdiagnose gehören an:





Stärker differenzierte Weltkonjunktur
– Gegenwind für die Schwellenländer



Runter von der Überholspur



Aufschwungskräfte trage noch,
mittelfristig langsamere Gangart

- Clear line between scientific forecasting and mumbo-jumbo

- Business cycle forecasting is more than a number
 - » Many numbers
(full and consistent set of national accounts framework)
 - » Embedded in overall story line
(data interpretation, not only number crunching)

- ⇒ **Forecasting ...**
 - » ... **supports economic reasoning/policy making**
 - » ... **links theory to reality**

Time for Q&A

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Analytic profile (1/3)

Topic	View		Focus
Concept of man (human action)	homo agens (purposeful conduct driven by uneasiness under uncertainty)	⇒	<ul style="list-style-type: none"> ▪ Macro pattern as mass phenomena resulting from human interaction in society ▪ Evolutionary social process
Production	Multi-stage, time consuming process; capital-based and consumption-driven	⇒	<ul style="list-style-type: none"> ▪ Demand-supply mismatches ▪ Use-dependent potential output (path dependency) ▪ $IC+GDP+IM = IC+C+I+Ex$
Capital (physical + human)	Structure („unfinished entrepreneurial plans“), not a homogenous fund; intertemporal IC	⇒	<ul style="list-style-type: none"> ▪ Marketable value (affecting potential output) ▪ Distortions/concentration
Interest	Component in all product prices; time preference superimposed by liquidity positions (loanable funds)	⇒	<ul style="list-style-type: none"> ▪ Capital stock (volume and structure) ▪ Product classification along durability/distance from consumption

Analytic profile (2/3)

Topic	View		Focus
<p>Money and monetary policy</p>	<p>Not neutral, impact on price level and price structure via interest rates, globally pervasive</p>	<p>⇒</p>	<ul style="list-style-type: none"> ▪ Impact on level and structure of prices and economic activity ▪ Cantillon effects ▪ Alternatives to inflation targeting ▪ Global liquidity positions
<p>Prices</p>	<p>Structure more important than levels</p>	<p>⇒</p>	<ul style="list-style-type: none"> ▪ Relative prices ▪ Ends-means value imputation and factor prices ▪ Flexibility ▪ Measurement problems ▪ Haberler indices

Analytic profile (3/3)

Topic	View		Focus
Business cycles	Booms precede busts, impact of credit expansion and interest rate distortions	⇒	<ul style="list-style-type: none">▪ Monetary analysis▪ Composition of production (distance to consumption, durable goods)▪ Disaggregated potential output▪ Underutilized vs. obsolete production possibilities (output gaps vs. shifts in potential production)